



FCC PART 15 TEST REPORT No.I23Z60662-IOT06

for

TCL Communication Ltd.

Tablet PC

8196G

With

FCC ID: 2ACCJB201

Hardware Version: PIO

Software Version: v3SSC

Issued Date: 2023-06-12

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: ctl_terminals@caict.ac.cn, website: www.caict.ac.cn

REPORT HISTORY

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1. TEST LATORATORY

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Conducted testing Location: CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China100191

Radiated testing Location:

CTTL (BDA)

Address: No. 18A, Kangding Street, Beijing Economic-Technology
Development Area, Beijing, 100176, P.R. China

CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
100191, P. R. China

1.3. Testing Environment

Normal Temperature: 15-35°C

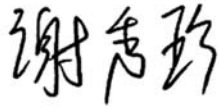
Relative Humidity: 20-75%

1.4. Project date

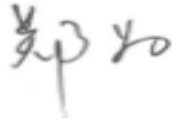
Testing Start Date: 2023-04-13

Testing End Date: 2023-06-12

1.5. Signature



Xie Xiuzhen
(Prepared this test report)



Zheng Wei
(Reviewed this test report)



Pang Shuai
(Approved this test report)

2. CLIENT INFORMATION

2.1 Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
Telephone: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

2.2 Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
Telephone: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

3. EQUIPMENT UNDER TEST (EUT) AND

ANCILLARY EQUIPMENT (AE)

3.1. About EUT

Description	Tablet PC
Model name	8196G
FCC ID	2ACCJB201
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Voltage	3.85V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
UT33a	354304830000889	PIO	v3SSC
UT11a	354304830000376	PIO	v3SSC

*EUT ID: is used to identify the test sample in the lab internally.

UT11a is used for Conduction test, UT33a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Name	Model	Manufacturer
AE1	Battery	TLp058C8	Huizhou Ganfeng Lienergy Battery Technology Co.,Ltd.
AE2-1	Adapter(US)	CG10A0502000UU	Huizhou Juwei Electronics Co.,LTD.
AE2-2	Adapter(EU)	CG10A0502000EU	Huizhou Juwei Electronics Co.,LTD.
AE2-3	Adapter(US)	UC13US	HUIZHOU PUAN ELECTRONICS CO., LTD
AE2-4	Adapter(UK)	UC13UK	HUIZHOU PUAN ELECTRONICS CO., LTD
AE2-5	Adapter(EU)	UC13EU	HUIZHOU PUAN ELECTRONICS CO., LTD
AE3	Date Cable	JWUB1581-Y50R	Huizhou Juwei Electronics Co.,LTD.

*AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment under Test (EUT) is a model of Tablet PC with integrated antenna and inbuilt battery.

It has Bluetooth (EDR)function.

It consists of normal options: travel charger, USB cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor $k=2$.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2021
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES	2019

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	P
Peak Power Spectral Density	15.407	/	P
Occupied 26dB Bandwidth	15.403	/	P
Band edge compliance (Radiated)	15.209	/	P
Transmitter spurious emissions (Radiated)	15.407	/	P
AC Powerline Conducted Emission (150kHz- 30MHz)	15.407	/	P
Frequency Stability	15.407	/	P
99% Occupied bandwidth	/	/	P
Transmit Power Control	15.407	/	NA

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NM	Not measured, The test was not measured by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

CTTL has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

6.3. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26°C
Voltage	3.85V
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2024-06-05
2	LISN	ENV216	101200	Rohde & Schwarz	1 year	2023-06-29
3	Test Receiver	ESCI	100344	Rohde & Schwarz	1 year	2024-02-21
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100376	R&S	1 year	2023-09-22
2	Test Receiver	ESW44	103015	R&S	1 year	2024-01-14
3	Test Receiver	ESW44	103144	R&S	1 year	2023-10-25
4	Loop Antenna	HFH2-Z2	829324/007	R&S	1 year	2023-12-22
5	EMI Antenna	VULB9163	01177	Schwarzbeck	1 year	2023-08-03
6	EMI Antenna	3117	00119024	ETS-Lindgren	1 year	2023-06-07
7	EMI Antenna	LB-180400 -25-C-KF	21100840000 06	A-INFO	1 year	2024-03-02

Note: the EMI Antenna which Serial Number is 00119024 was before Calibration Due date when used.

AC Power Line Conducted Emission

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	LISN	ENV216	101459	R&S	1 year	2024-02-29
2	Test Receiver	ESCI	100766	R&S	1 year	2024-03-30

8. Measurement Uncertainty

8.1 Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2 Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3 Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4 Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5 Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	4.92
$30\text{MHz} \leq f \leq 1\text{GHz}$	5.29
$1\text{GHz} \leq f \leq 18\text{GHz}$	5.62
$18\text{GHz} \leq f \leq 40\text{GHz}$	3.52

8.6 AC Power-line Conducted Emission

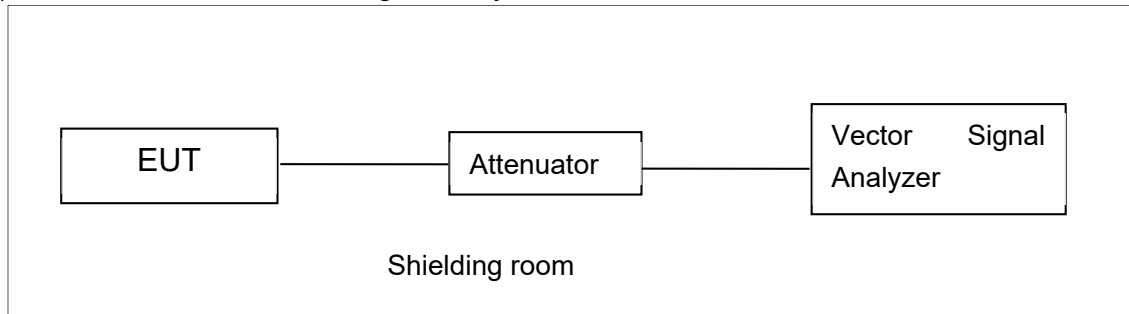
Measurement Uncertainty : 3.10,k=2

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode.
- 3). Set the EUT to the required channel.
- 4). Set the spectrum analyzer to start measurement.
- 5). Record the values. Vector Signal Analyzer

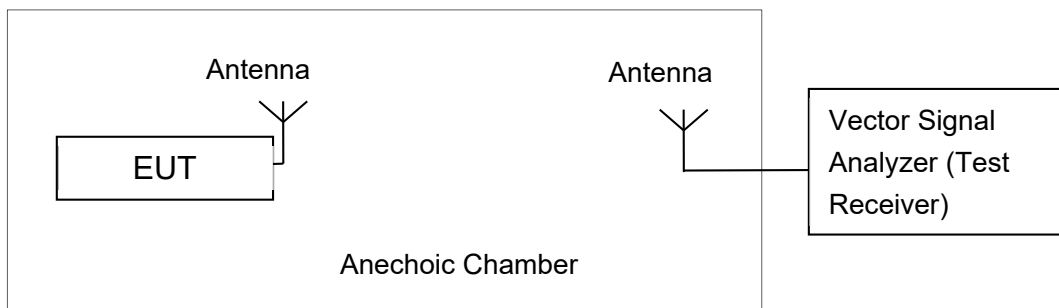


A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 3MHz;



The measurement is made according to KDB 789033

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB

Limit use the less value, and B is the 26dB bandwidth.

The measurement method SA-2 is made according to KDB 789033

Measurement Results:

802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	16.54	/	/	/	/	/	/	/
	5200MHz	16.52	/	/	/	/	/	/	/
	5240MHz	16.45	/	/	/	/	/	/	/
	5260MHz	16.58	/	/	/	/	/	/	/
	5280MHz	16.53	/	/	/	/	/	/	/
	5320MHz	16.61	/	/	/	/	/	/	/

The data rate 6Mbps is selected as worst condition, and the following cases are performed with this condition.

802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	16.16	/	/	/	/	/	/	/
	5200MHz	16.07	/	/	/	/	/	/	/
	5240MHz	16.12	/	/	/	/	/	/	/
	5260MHz	16.18	/	/	/	/	/	/	/
	5280MHz	16.08	/	/	/	/	/	/	/
	5320MHz	16.11	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-HT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (HT20)	5180MHz	16.22	/	/	/	/	/	/	/	/
	5200MHz	16.04	/	/	/	/	/	/	/	/
	5240MHz	16.11	/	/	/	/	/	/	/	/

	5260MHz	16.07	/	/	/	/	/	/	/	/
	5280MHz	16.09	/	/	/	/	/	/	/	/
	5320MHz	16.23	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz	15.55	/	/	/	/	/	/	/
	5230MHz	15.53	/	/	/	/	/	/	/
	5270MHz	15.51	/	/	/	/	/	/	/
	5310MHz	15.56	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-HT40 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (HT40)	5190MHz	15.52	/	/	/	/	/	/	/	/	/
	5230MHz	15.61	/	/	/	/	/	/	/	/	/
	5270MHz	15.59	/	/	/	/	/	/	/	/	/
	5310MHz	15.56	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-HT80 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (HT80)	5210MHz	15.51	/	/	/	/	/	/	/	/	/
	5290MHz	15.62	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

The duty cycle of all mode are 100%

Conclusion: PASS

A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11

The output power measurement method Section F is made according to KDB 789033

Measurement Results:

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	4.75	P
	5200 MHz	4.84	P
	5240 MHz	4.88	P
	5260 MHz	4.89	P
	5280 MHz	5.12	P
	5320 MHz	5.10	P
802.11ac VHT20	5180 MHz	4.62	P
	5200 MHz	4.74	P
	5240 MHz	4.50	P
	5260 MHz	4.53	P
	5280 MHz	4.75	P
	5320 MHz	4.70	P
802.11ac VHT40	5190 MHz	1.19	P
	5230 MHz	1.77	P
	5270 MHz	1.30	P
	5310 MHz	1.28	P
802.11ac VHT80	5210MHz	-2.18	P
	5290MHz	-2.17	P

Conclusion: PASS

A.4. Occupied 26dB Bandwidth(conducted)

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.403 (i)	/

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Measurement Result:

Mode	Frequency	Occupied 26dB Bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.1	19.92	P
	5200 MHz	Fig.2	19.76	P
	5240 MHz	Fig.3	19.84	P
	5260 MHz	Fig.4	19.80	P
	5280 MHz	Fig.5	19.84	P
	5320 MHz	Fig.6	19.92	P
802.11ac VHT20	5180 MHz	Fig.7	20.20	P
	5200 MHz	Fig.8	20.16	P
	5240 MHz	Fig.9	20.12	P
	5260 MHz	Fig.10	20.12	P
	5280 MHz	Fig.11	20.04	P
	5320 MHz	Fig.12	20.16	P
802.11ac VHT40	5190 MHz	Fig.13	40.48	P
	5230 MHz	Fig.14	40.56	P
	5270 MHz	Fig.15	40.24	P
	5310 MHz	Fig.16	40.24	P
802.11ac VHT80	5210MHz	Fig.17	81.12	P
	5290MHz	Fig.18	81.28	P

Conclusion: PASS

Test graphs as below:

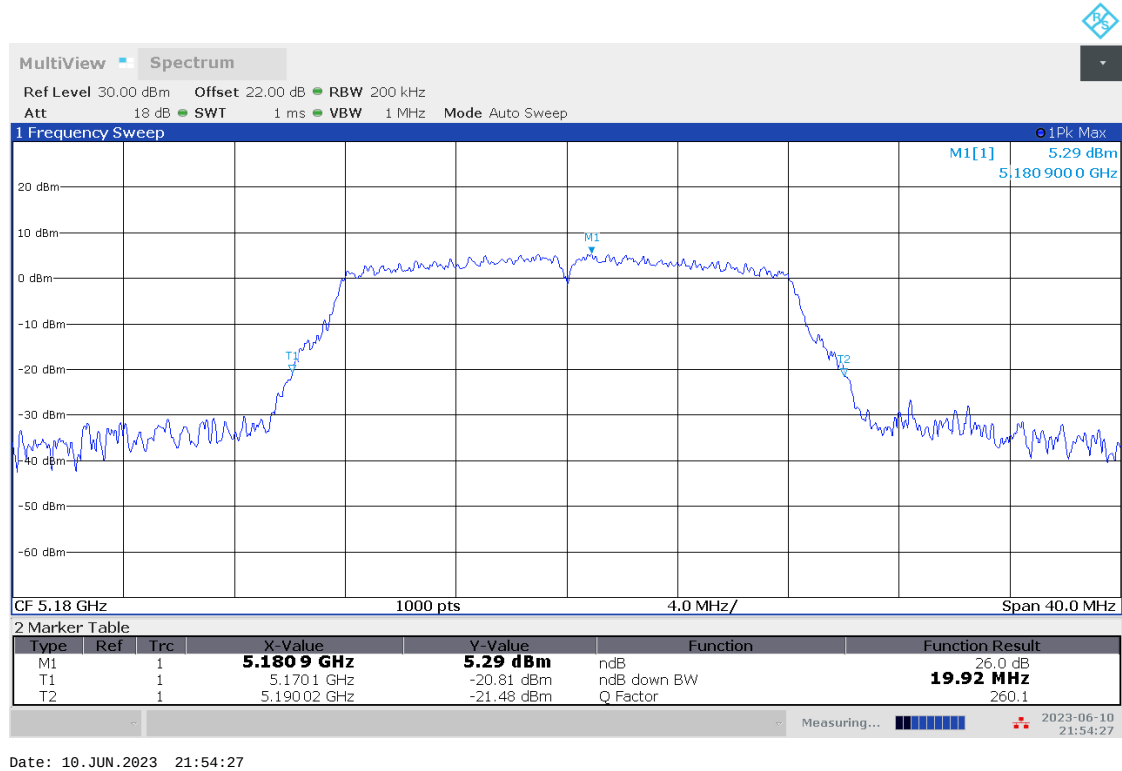


Fig.1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

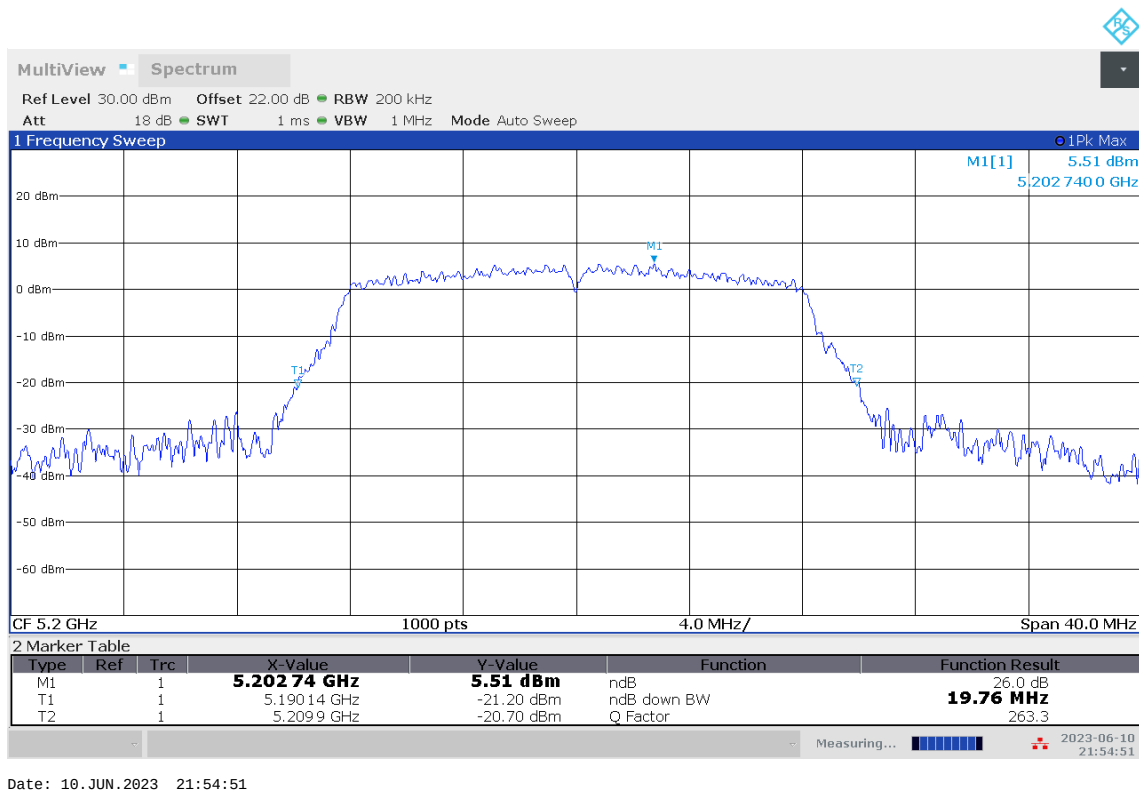


Fig.2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

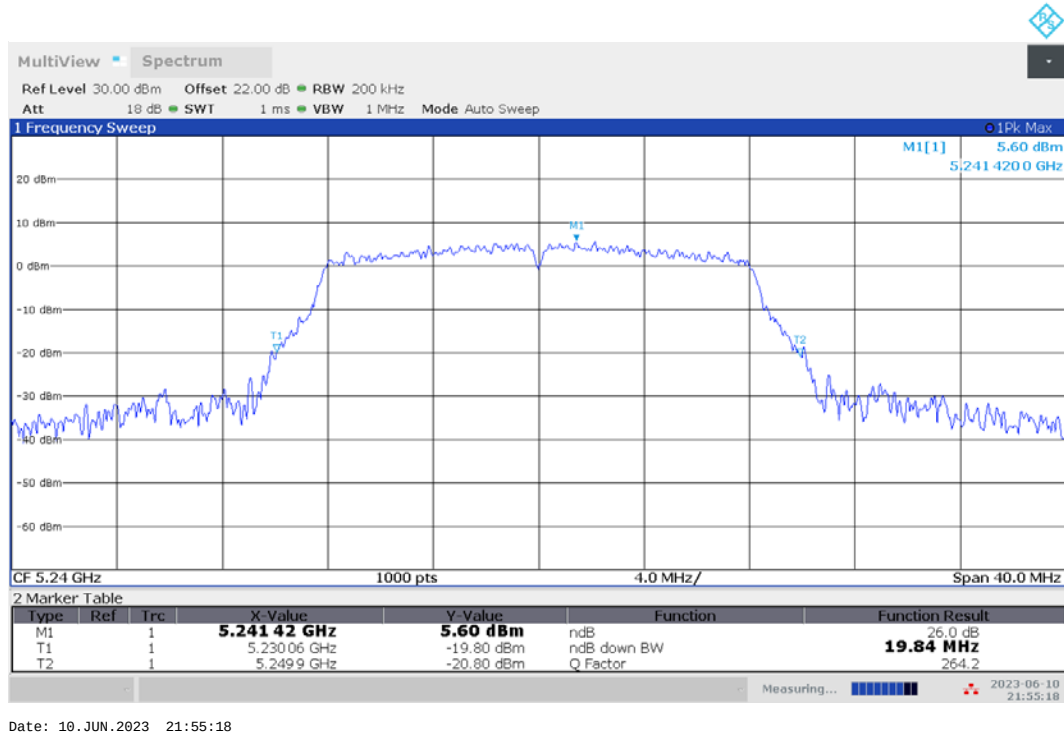


Fig.3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

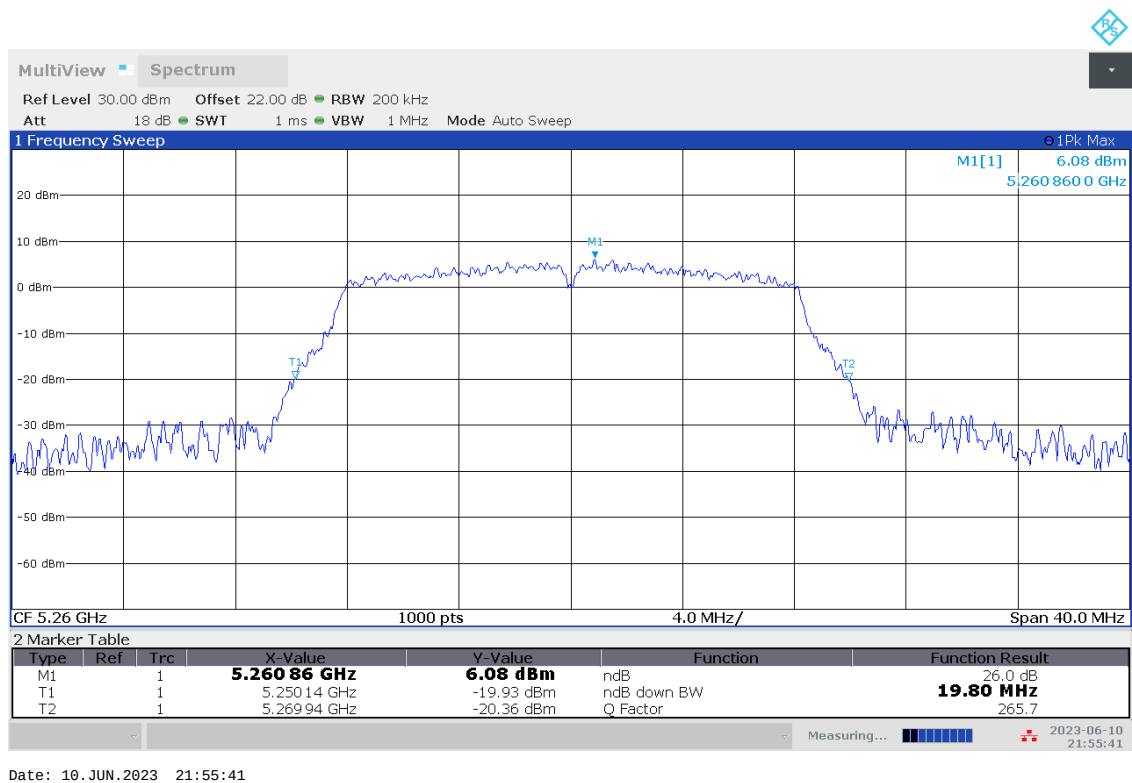


Fig.4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

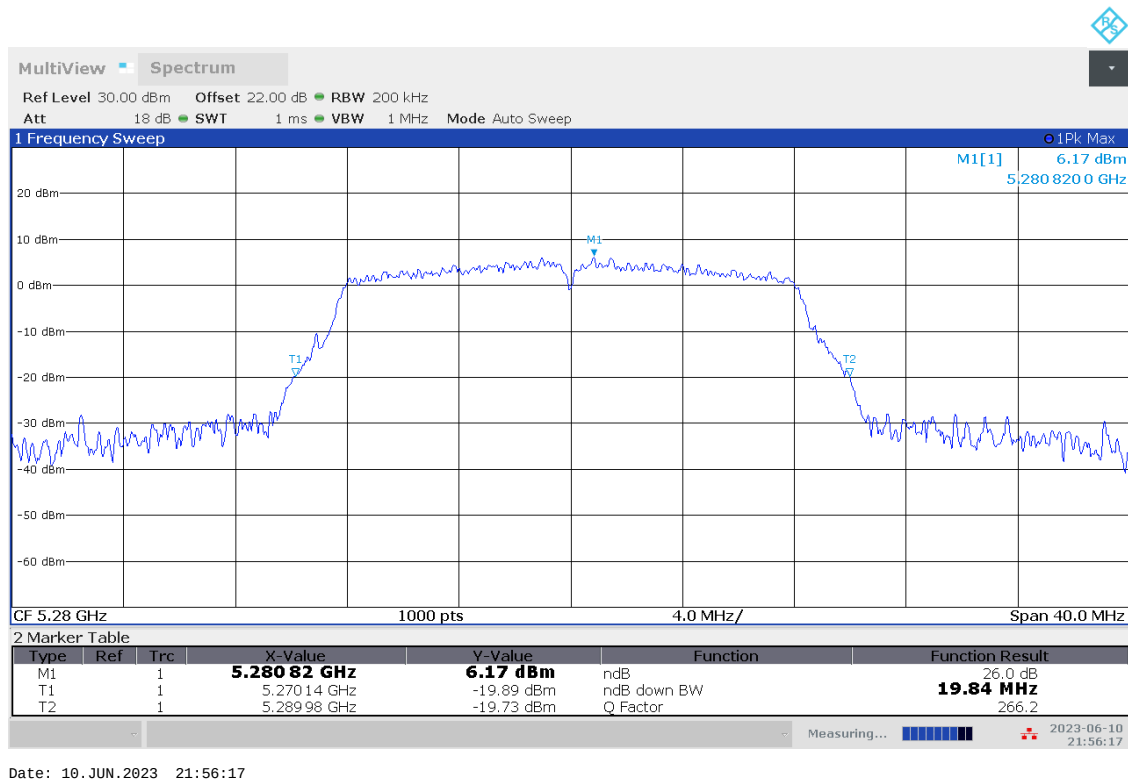


Fig.5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

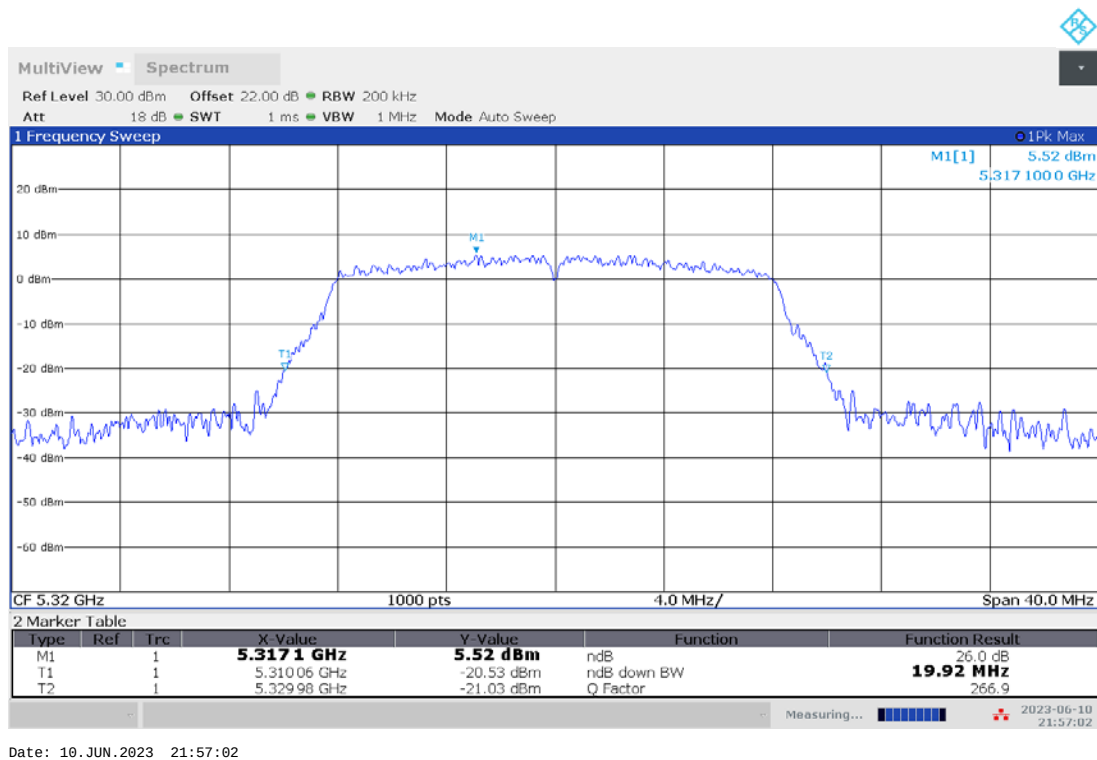
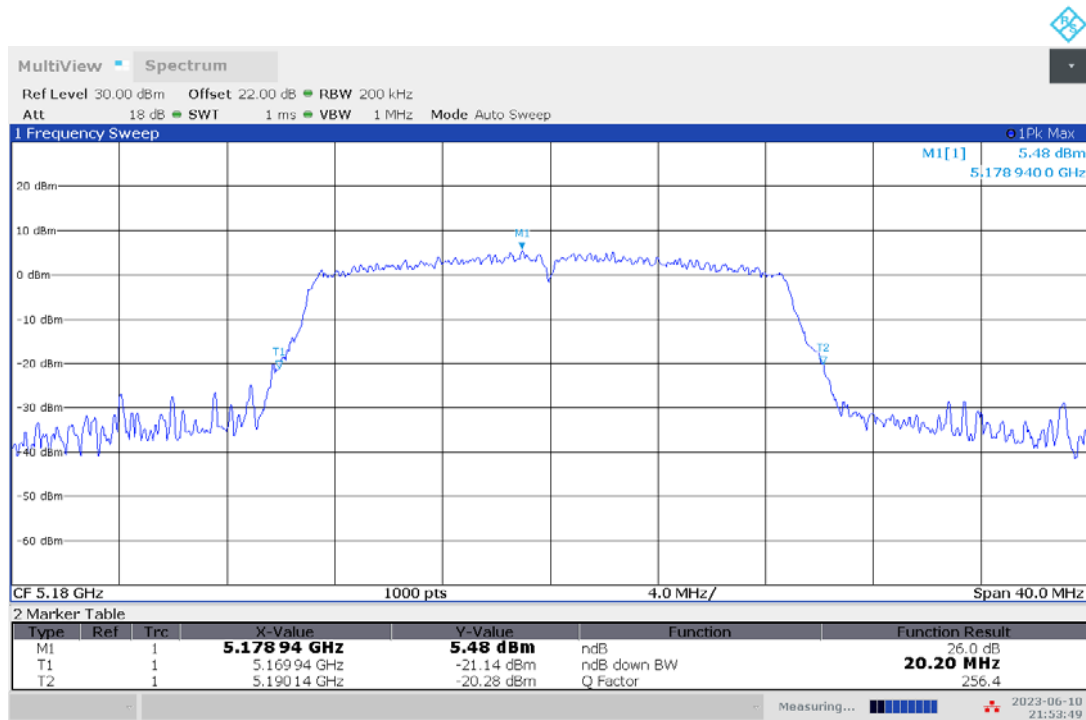
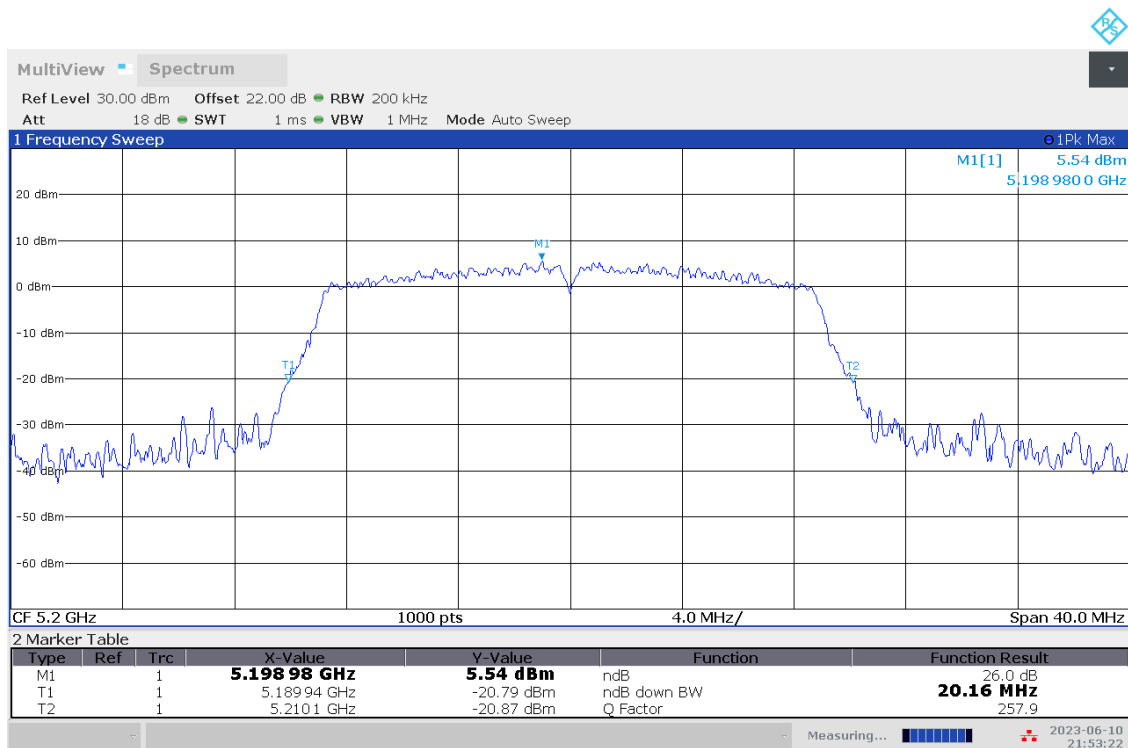


Fig.6 Occupied 26dB Bandwidth (802.11a, 5320MHz)



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Fig.7 Occupied 26dB Bandwidth (802.11ac-HT20, 5180MHz)



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Fig.8 Occupied 26dB Bandwidth (802.11ac-HT20, 5200MHz)

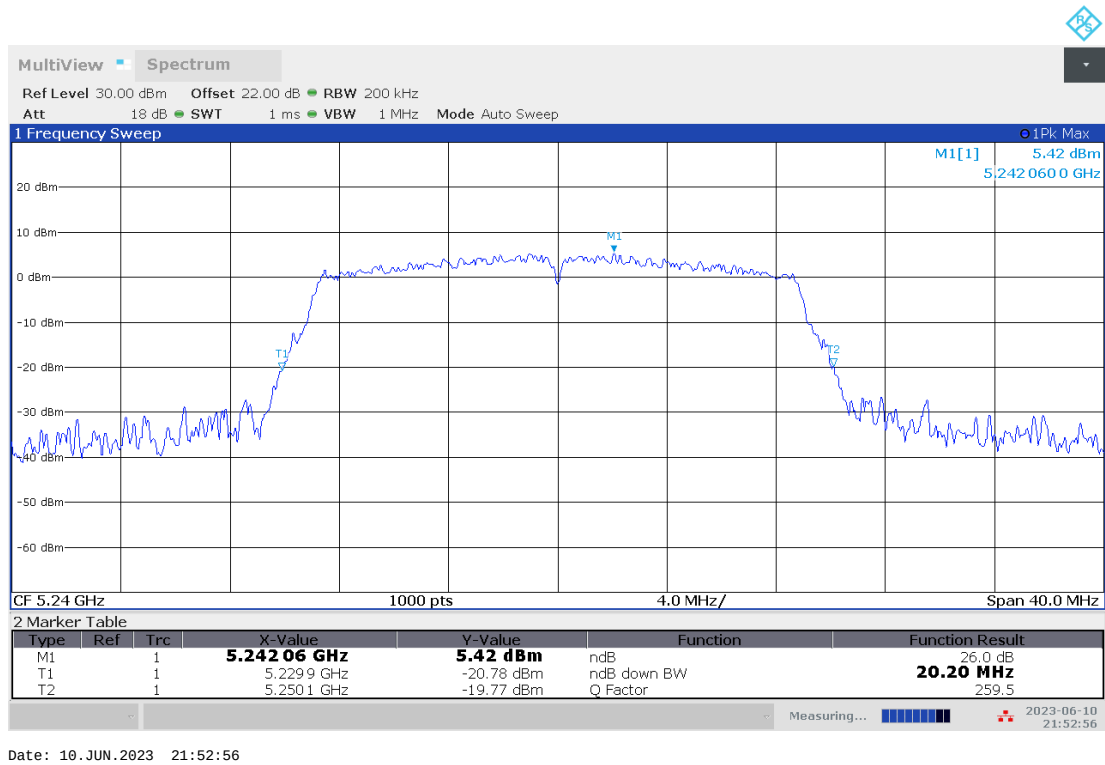


Fig.9 Occupied 26dB Bandwidth (802.11ac-HT20, 5240MHz)

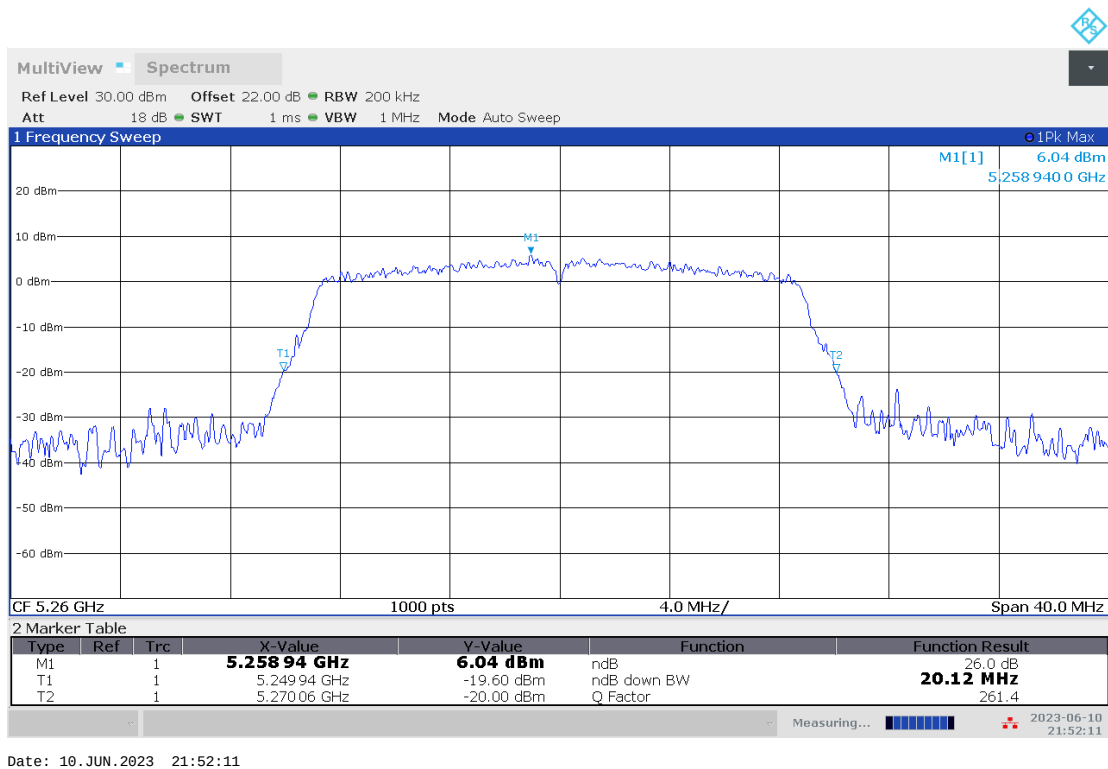
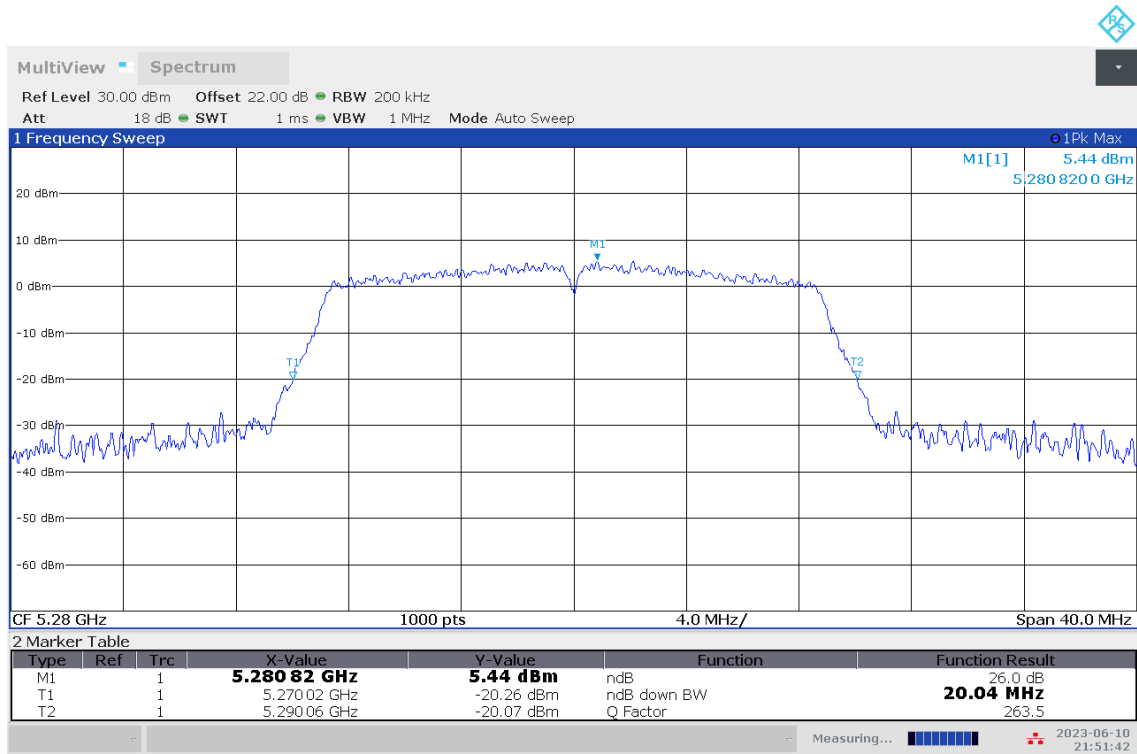
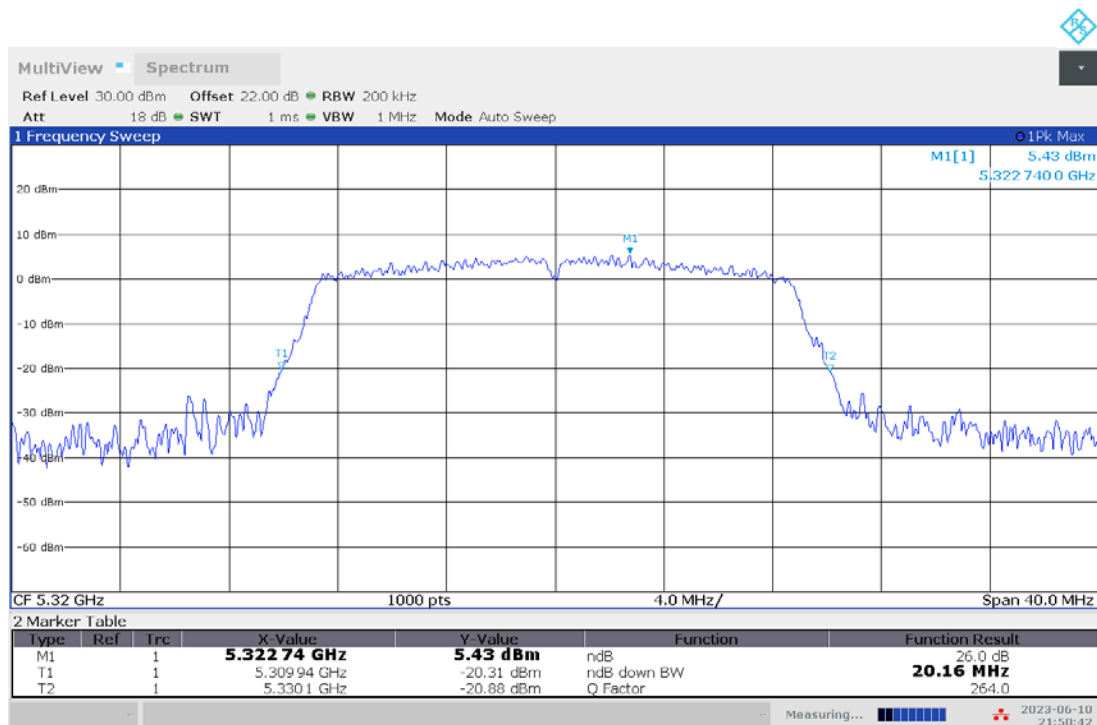


Fig.10 Occupied 26dB Bandwidth (802.11ac-HT20, 5260MHz)



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Fig.11 Occupied 26dB Bandwidth (802.11ac-HT20, 5280MHz)



Date: 10.JUN.2023 21:50:42

Fig.12 Occupied 26dB Bandwidth (802.11ac-HT20, 5320MHz)

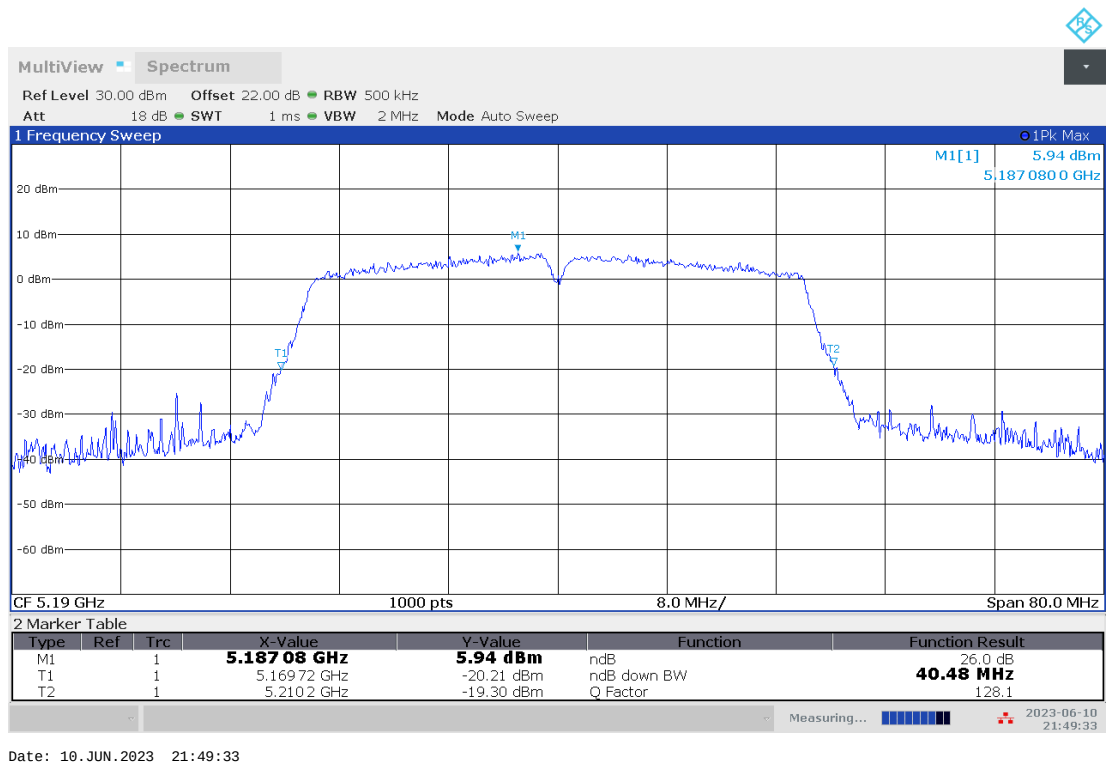


Fig.13 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)

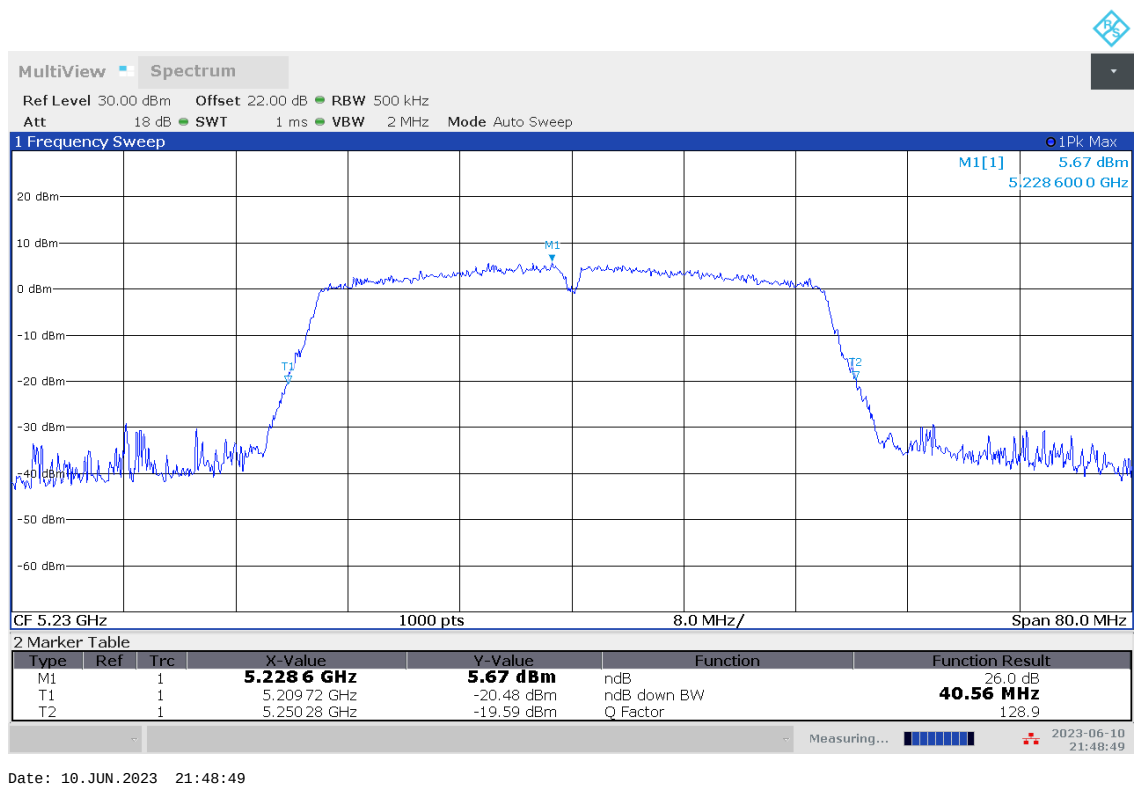


Fig.14 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)

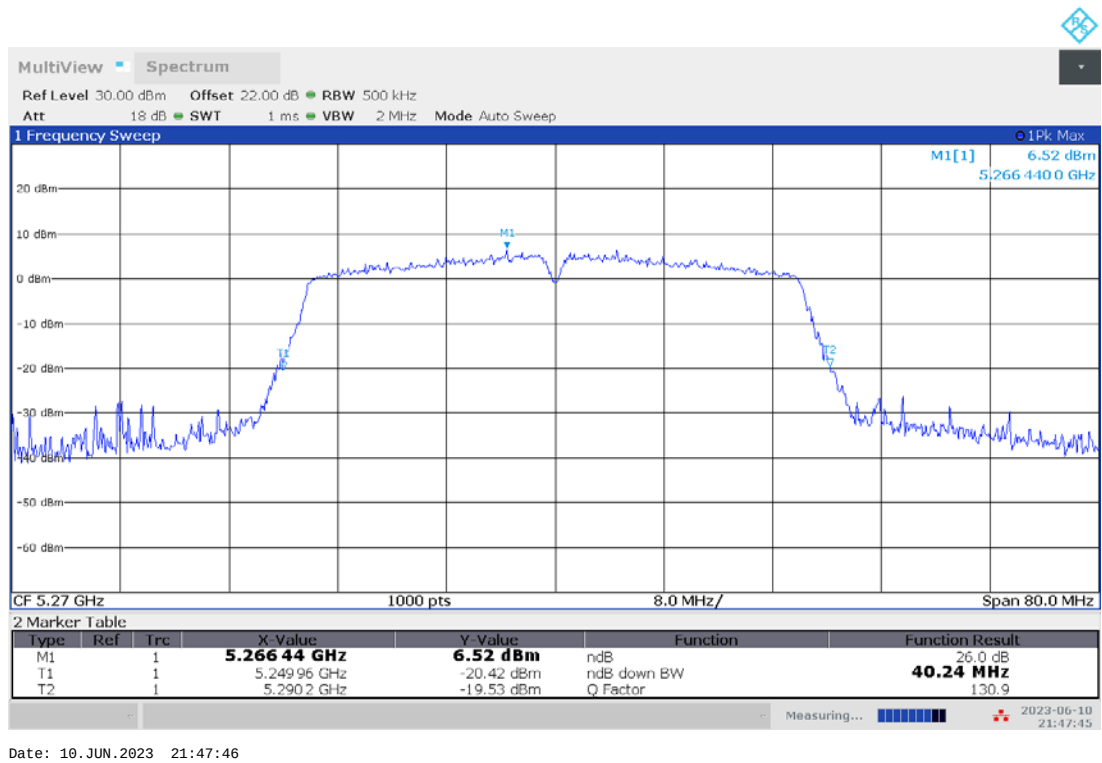


Fig.15 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)

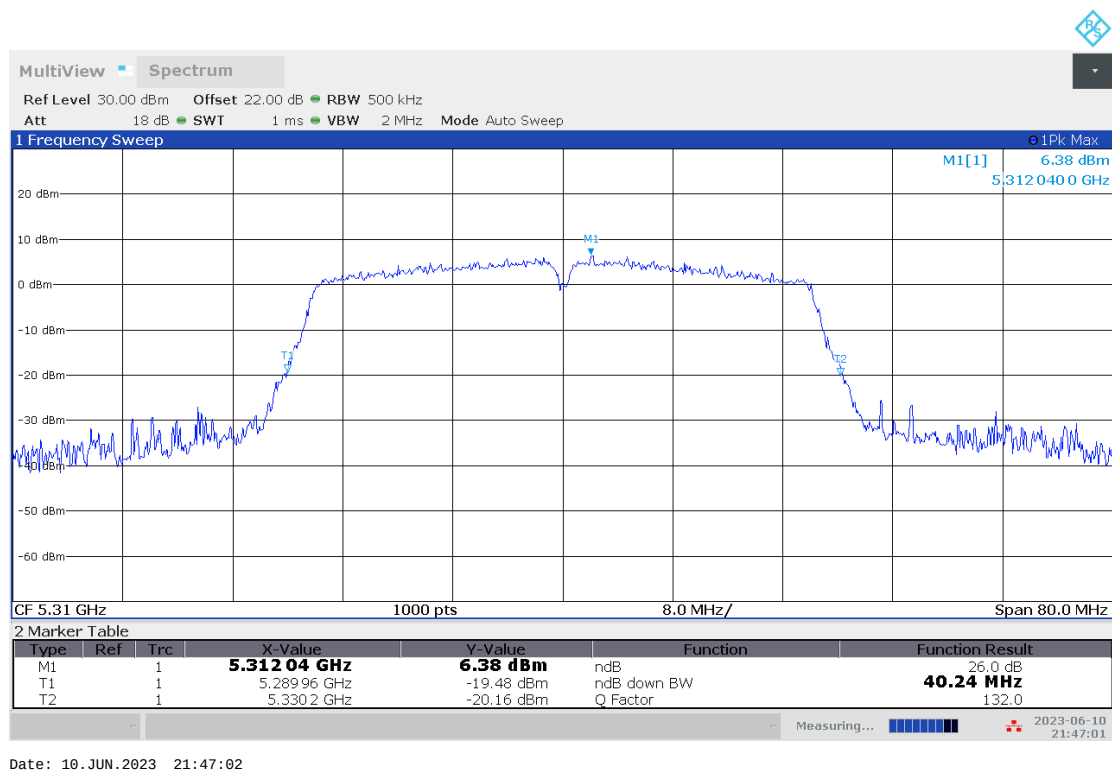


Fig.16 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)

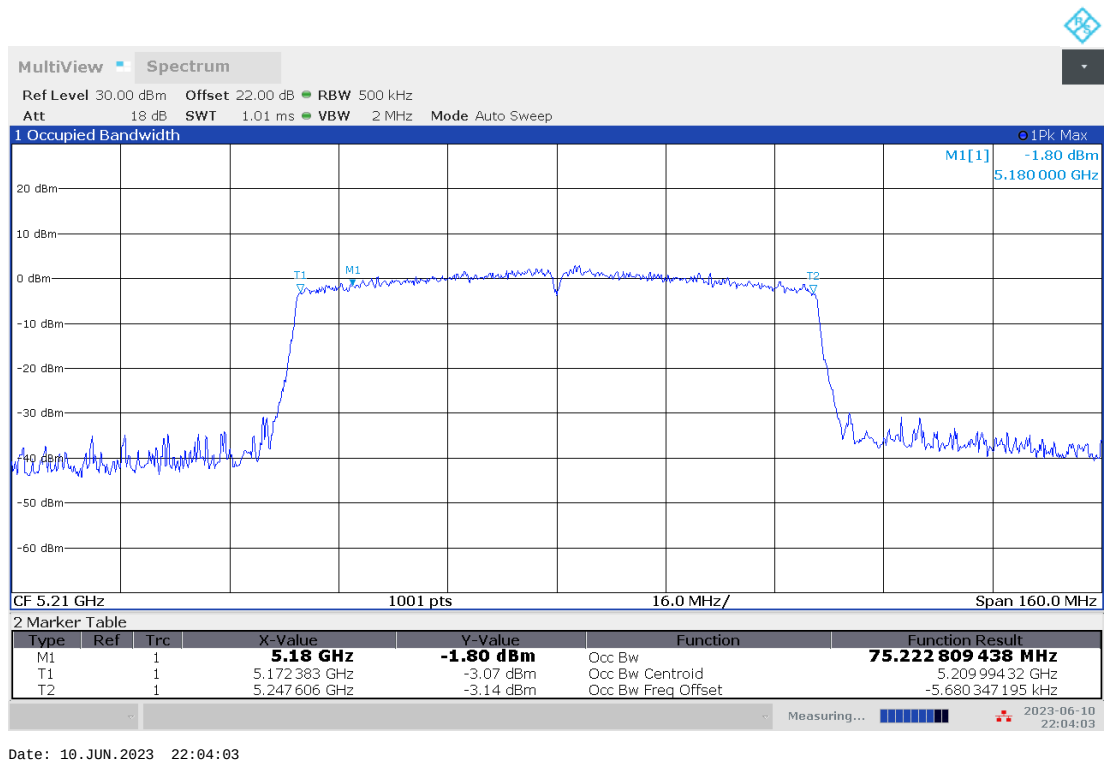


Fig.17 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)

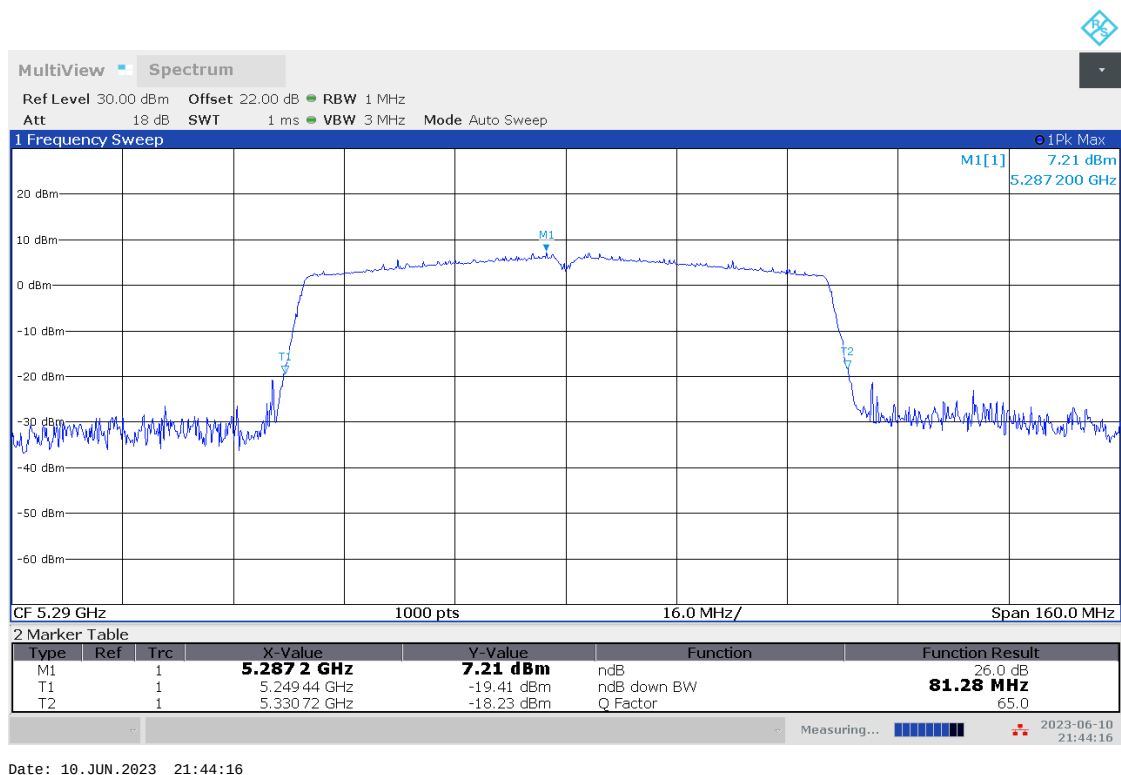


Fig.18 Occupied 26dB Bandwidth (802. 11ac-HT80, 5290MHz)

A.5. Band Edges Compliance

A5.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)	Measurement distance(m)
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m and the table height shall be 1.5 m.

The EUT and transmitting antenna shall be centered on the turntable.

Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 40GHz, RBW = 1MHz, VBW = 3MHz

Sample Calculations

1. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$E = \text{EIRP} - 20\log(D) + 104.77$ Where:

E is the field strength in dBμV/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dbm

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.19	P
	5320 MHz	Fig.20	P
802.11n HT20	5180 MHz	Fig.21	P
	5320 MHz	Fig.22	P
802.11n HT40	5190 MHz	Fig.23	P
	5310 MHz	Fig.24	P
802.11ac HT20	5180 MHz	Fig.25	P
	5320 MHz	Fig.26	P
802.11ac HT40	5190 MHz	Fig.27	P
	5310 MHz	Fig.28	P
802.11ac HT80	5210MHz	Fig.29	P
	5290MHz	Fig.30	P

Conclusion: PASS**Test graphs as below:**

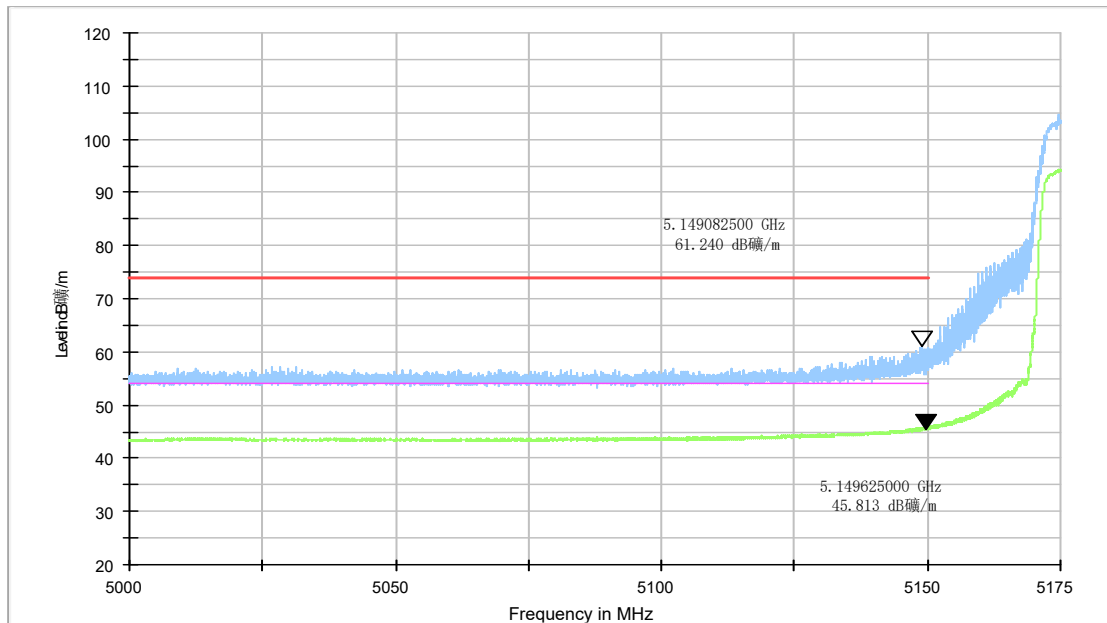


Fig.19 Band Edges (802.11a Ch36, 5180MHz)

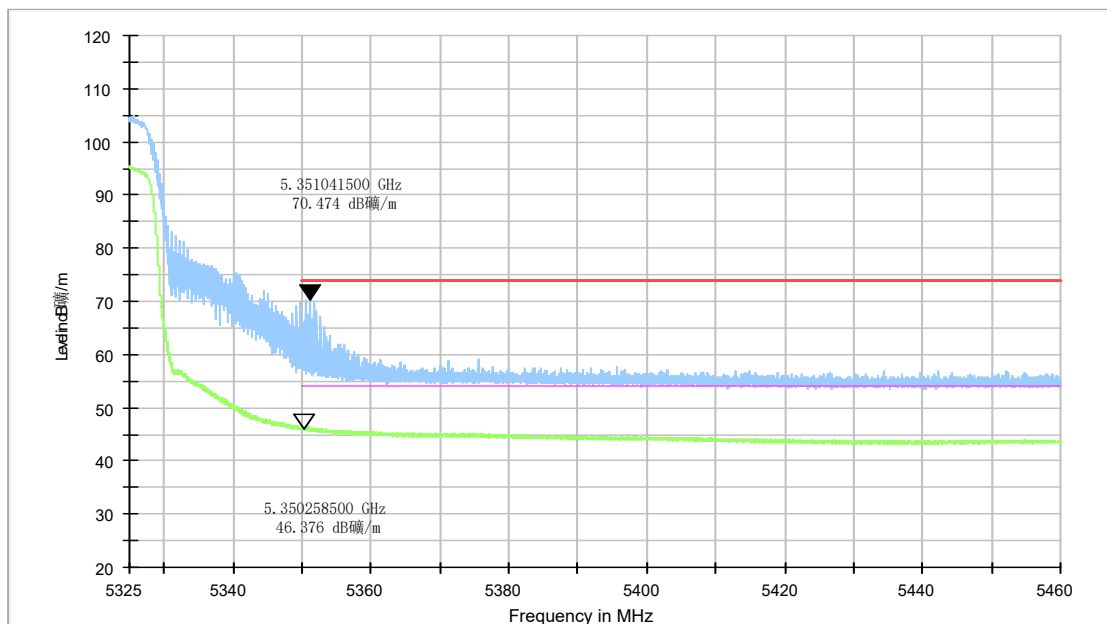


Fig.20 Band Edges (802.11a Ch64, 5320MHz)

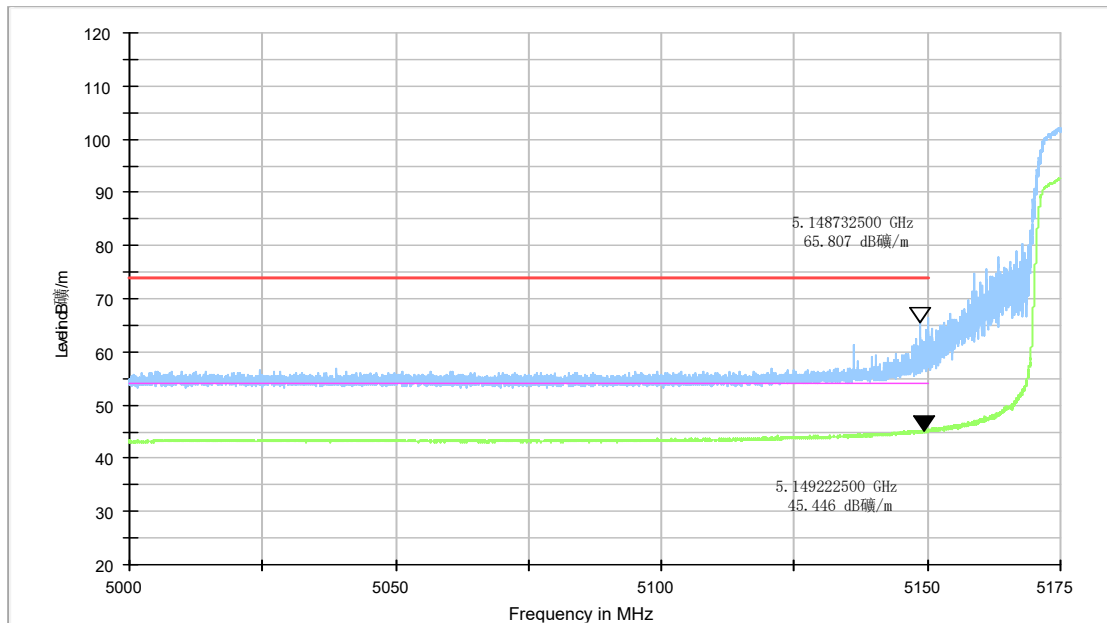


Fig.21 Band Edges (802.11n-HT20 Ch36, 5180MHz)

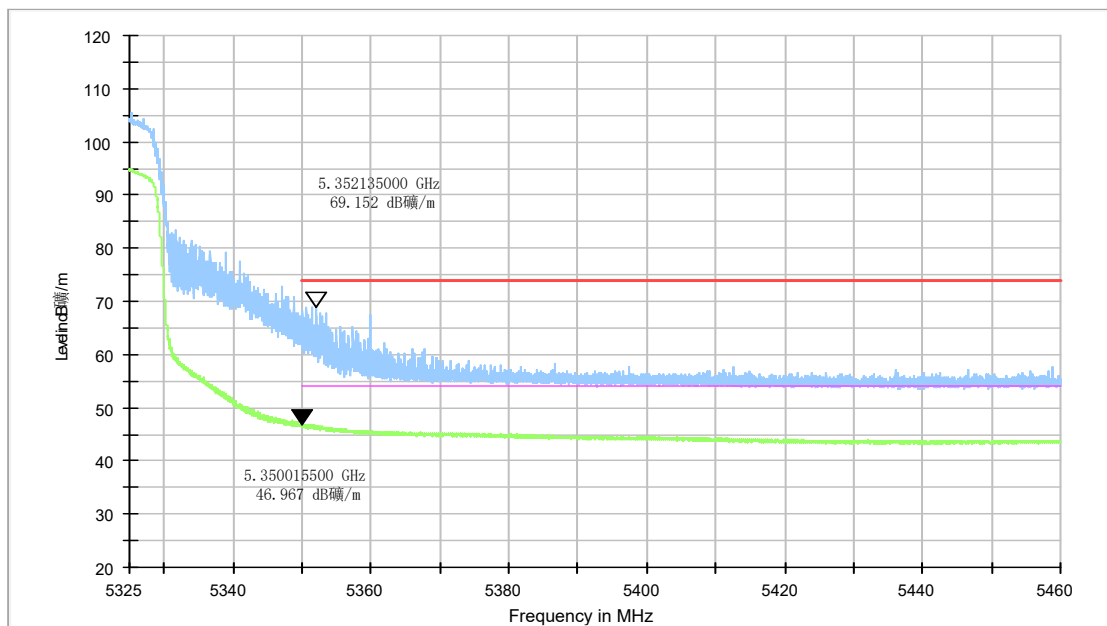


Fig.22 Band Edges (802.11n-HT20 Ch64, 5320MHz)

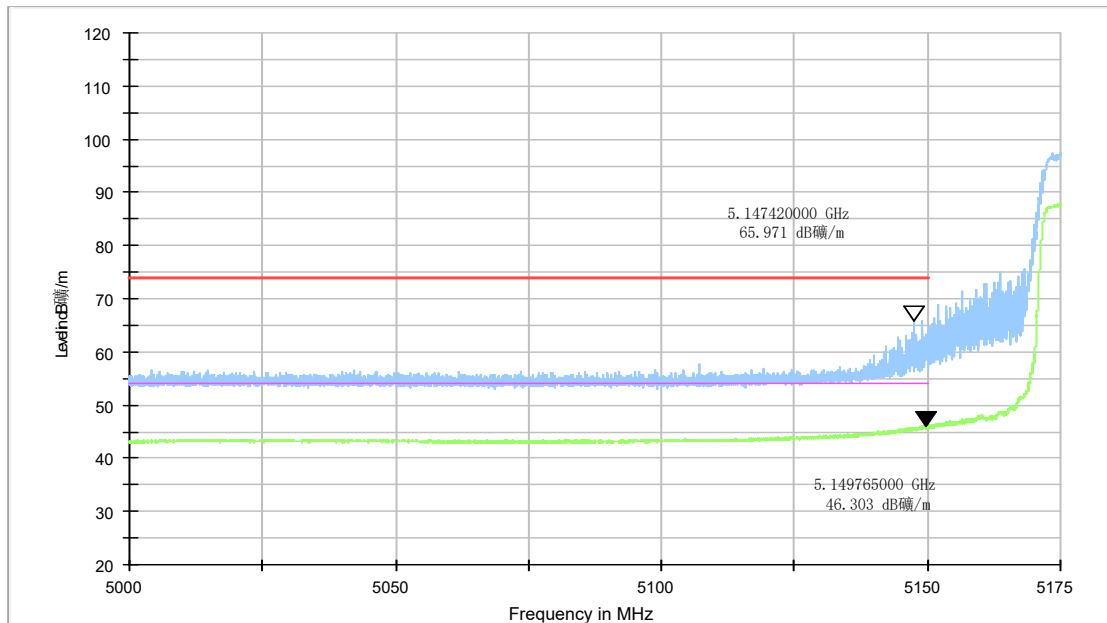


Fig.23 Band Edges (802.11n-HT40 Ch38, 5190MHz)

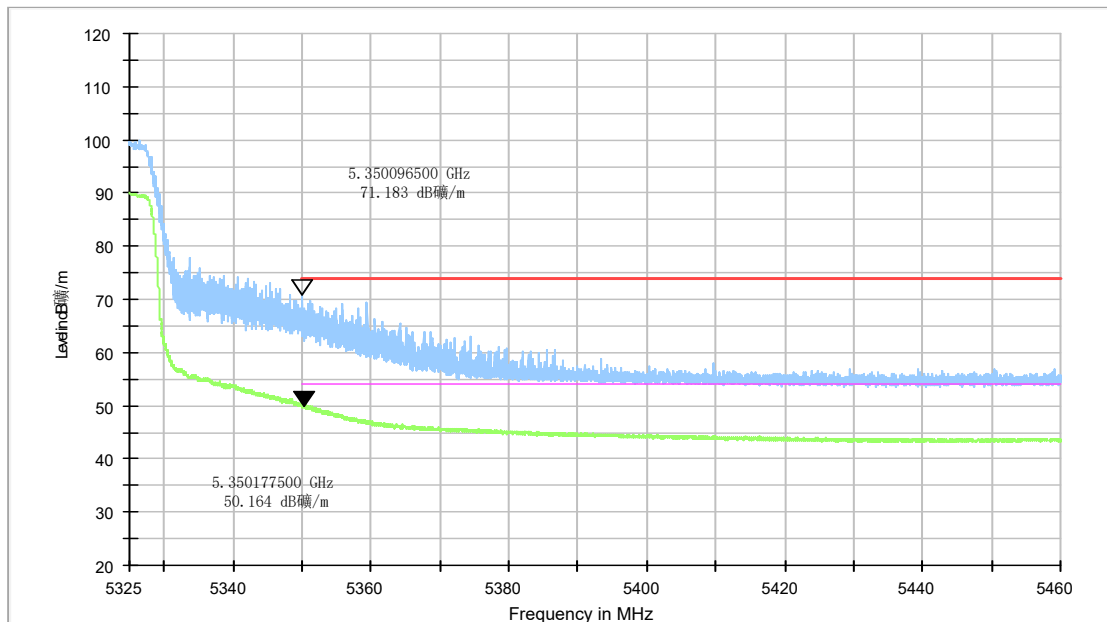


Fig.24 Band Edges (802.11n-HT40 Ch62, 5310MHz)

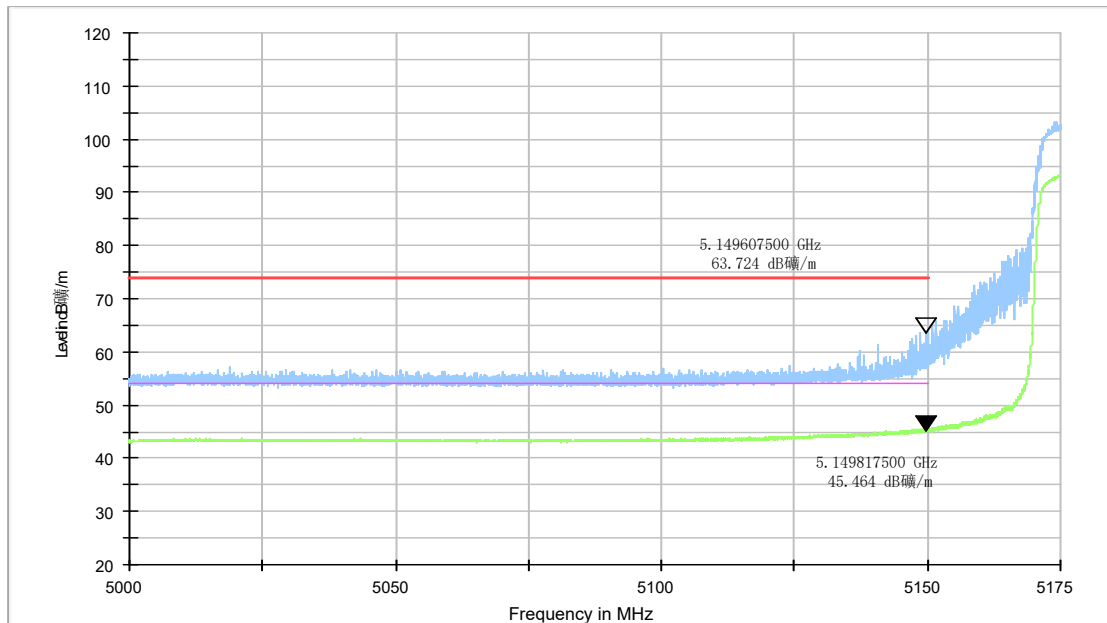


Fig.25 Band Edges (802.11ac-HT20 Ch36, 5180MHz)

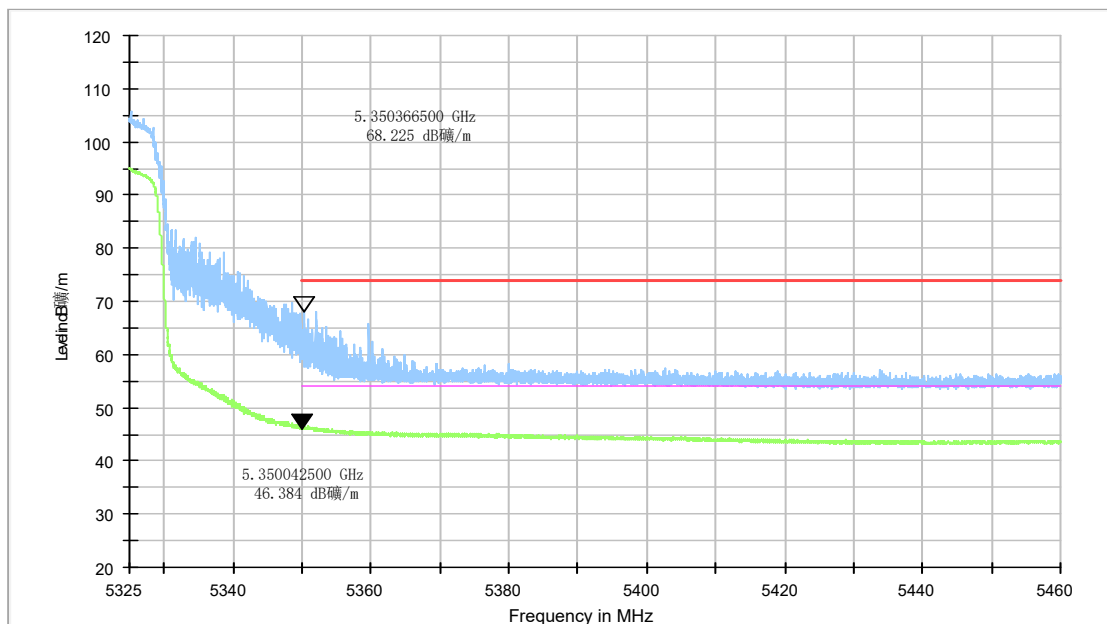


Fig.26 Band Edges (802.11ac-HT20 Ch64, 5320MHz)

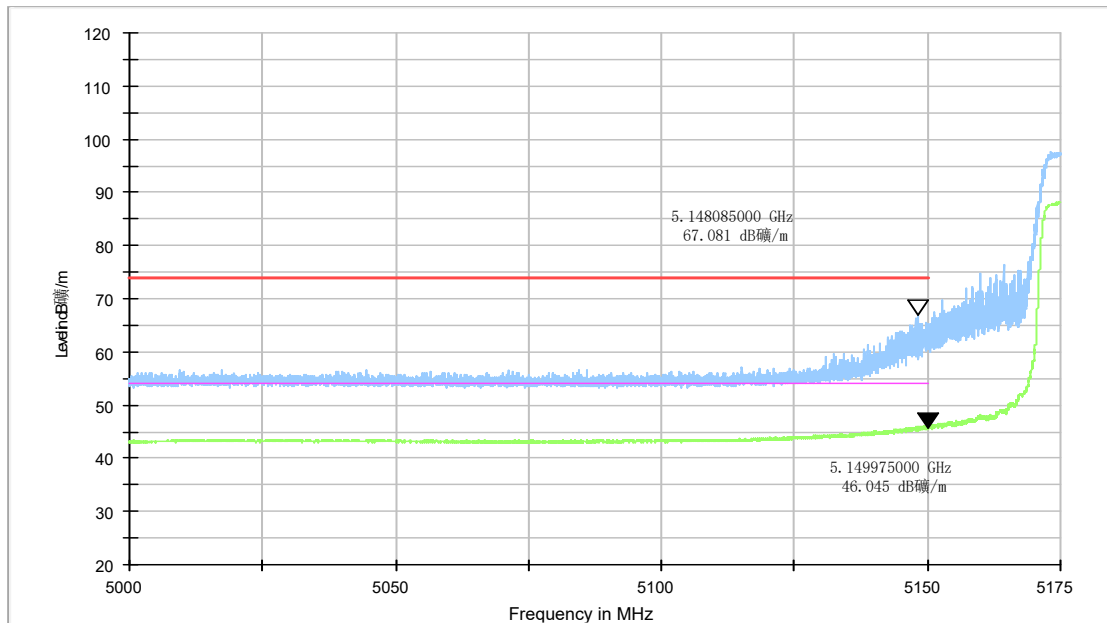


Fig.27 Band Edges (802.11ac-HT40 Ch38, 5190MHz)

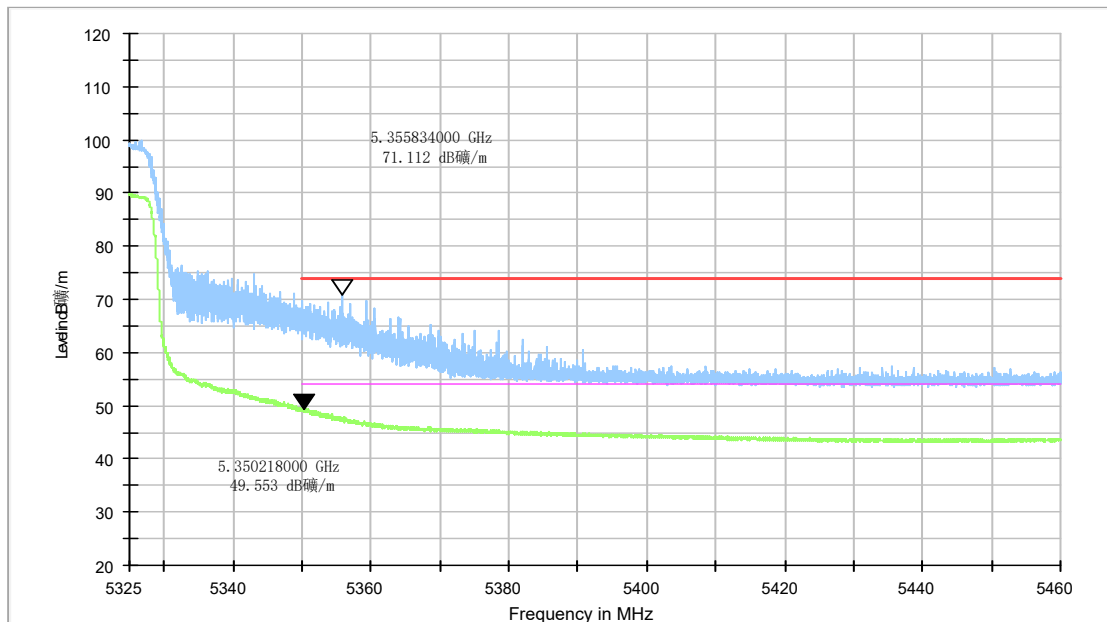


Fig.28 Band Edges (802.11ac-HT40 Ch62, 5310MHz)

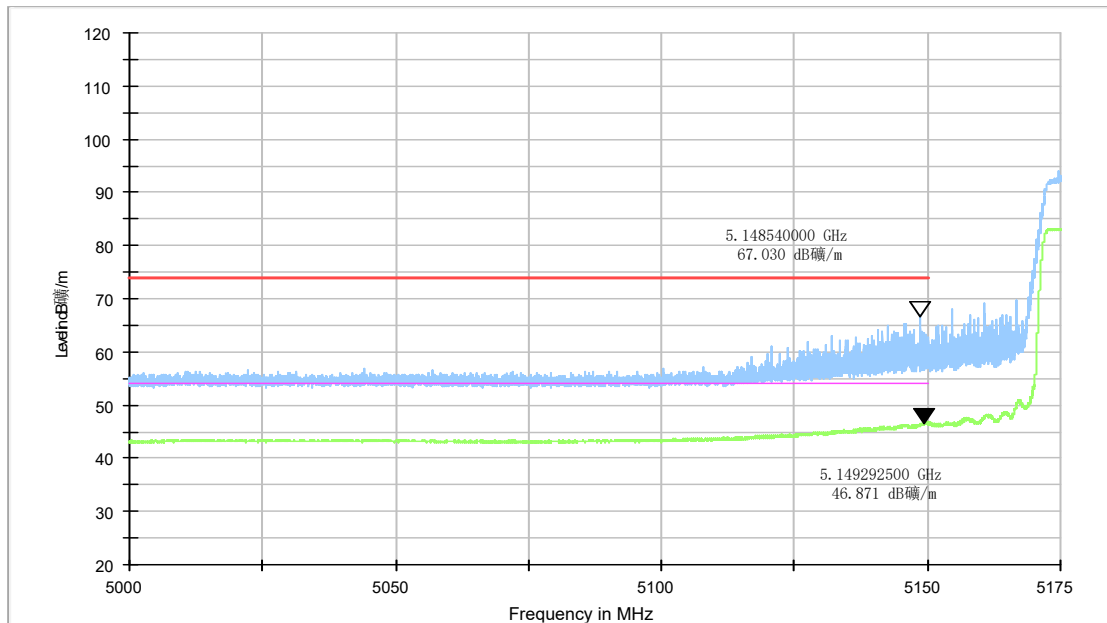


Fig.29 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)

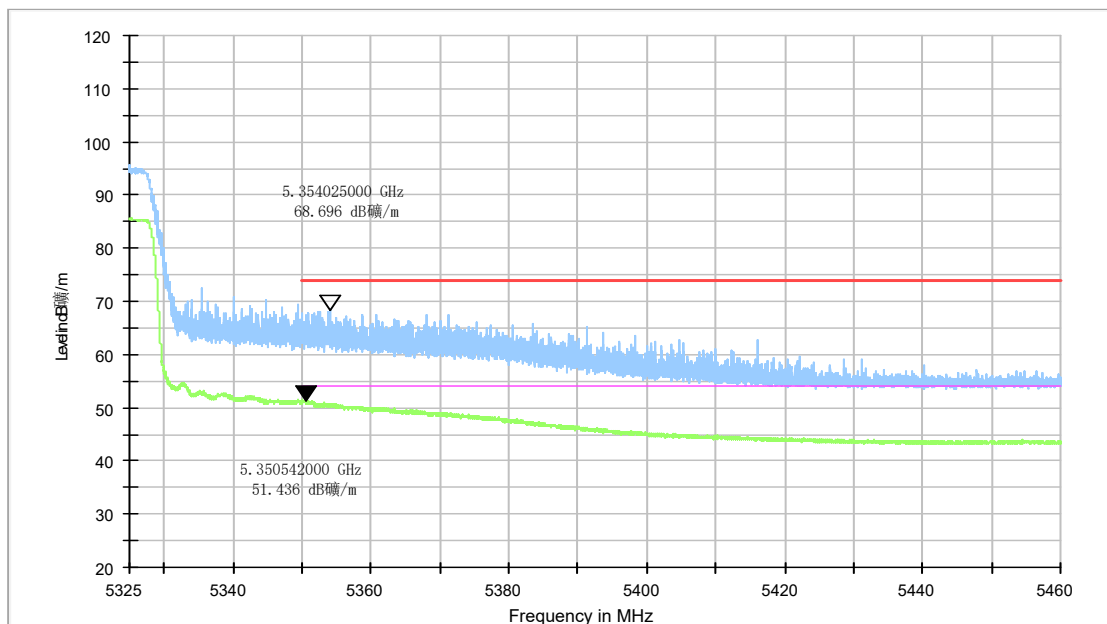


Fig.30 Band Edges (802.11ac-HT80 Ch58, 5290MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency (MHz)	Field strength(μ V/m)	Measurement distance(m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Frequency of emission (MHz)	Field strength(μ V/m)	Field strength(dBuV/m)	Measurement distance(m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m

The EUT and transmitting antenna shall be centered on the turntable.

Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-7000	1MHz/3MHz	15
7000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Sample Calculations

1. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20 \log(D) + 104.77$$

Where:

E is the field strength in dB μ V/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dbm

2. The measurement results are obtained as described below:

$$\text{Result} = P_{\text{Mea}} + A_{\text{Rpl}} = P_{\text{Mea}} + \text{Cable Loss} + \text{Antenna Factor}$$

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

Note:

The range of evaluated frequency is from 9 kHz to 26GHz. Measurement value showed here only up to 6 maximum emissions noted.

Measurement Results

AVERAGE Results:

802.11a

Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5149.200	44.85	-23.80	34.40	34.25	54.00	9.15	V
5150.000	44.94	-23.79	34.40	34.32	54.00	9.06	V
8288.000	37.01	-32.17	35.88	33.30	54.00	16.99	H
10359.500	38.31	-32.02	37.46	32.87	54.00	15.69	H
15540.500	42.82	-26.59	40.08	29.33	54.00	11.18	V
17966.000	38.88	-25.83	41.20	23.51	54.00	15.12	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.400	43.99	-23.82	34.39	33.41	54.00	10.01	V
5149.600	44.07	-23.79	34.40	33.46	54.00	9.93	V
8320.000	37.05	-32.19	35.90	33.34	54.00	16.95	H
10399.500	38.67	-32.09	37.50	33.26	54.00	15.33	V
15598.500	42.28	-26.52	40.20	28.61	54.00	11.72	H
17967.500	38.87	-25.83	41.20	23.50	54.00	15.13	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5129.000	43.23	-24.20	34.32	33.12	54.00	10.77	V
5145.600	43.59	-23.87	34.38	33.08	54.00	10.41	V
8384.000	36.93	-32.19	35.90	33.22	54.00	17.07	H
10479.500	38.94	-32.14	37.58	33.50	54.00	15.06	V
15720.000	42.36	-26.34	40.34	28.37	54.00	11.64	V
17969.000	38.90	-25.83	41.20	23.53	54.00	15.10	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5352.000	43.81	-23.92	34.50	33.23	54.00	10.19	V
5355.800	43.70	-23.90	34.50	33.10	54.00	10.30	V
8416.000	36.06	-32.20	35.90	32.35	54.00	17.94	V
10519.500	39.17	-31.93	37.60	33.50	54.00	14.83	V
15780.000	42.09	-26.31	40.46	27.94	54.00	11.91	H
17979.500	38.91	-25.84	41.20	23.55	54.00	15.09	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.400	43.99	-23.92	34.50	33.41	54.00	10.01	V
5362.600	43.93	-23.87	34.50	33.30	54.00	10.07	V
8448.000	36.47	-32.24	35.90	32.81	54.00	17.53	V
10559.000	38.57	-31.72	37.60	32.69	54.00	15.43	H
15840.500	41.70	-26.30	40.58	27.41	54.00	12.30	V
17991.000	39.03	-25.85	41.20	23.67	54.00	14.97	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.800	45.36	-23.92	34.50	34.78	54.00	8.64	V
5351.400	45.25	-23.92	34.50	34.66	54.00	8.75	V
8512.000	36.53	-32.37	35.80	33.10	54.00	17.47	H
10638.500	37.13	-32.04	37.68	31.50	54.00	16.87	V
15959.500	40.88	-26.24	40.76	26.36	54.00	13.12	H
17967.000	38.90	-25.83	41.20	23.52	54.00	15.10	V

802.11n-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.600	45.07	-23.83	34.39	34.52	54.00	8.93	V
5149.000	45.27	-23.81	34.40	34.68	54.00	8.73	V
8287.500	37.06	-32.17	35.88	33.35	54.00	16.94	V
10359.500	37.16	-32.02	37.46	31.72	54.00	16.84	H
15541.000	40.89	-26.58	40.08	27.39	54.00	13.11	H
17965.500	38.87	-25.83	41.20	23.49	54.00	15.13	V

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.000	43.84	-23.83	34.39	33.28	54.00	10.16	V
5149.600	43.88	-23.79	34.40	33.28	54.00	10.12	V
8320.000	37.13	-32.19	35.90	33.42	54.00	16.87	H
10400.000	37.81	-32.09	37.50	32.40	54.00	16.19	V
15597.000	41.32	-26.52	40.19	27.65	54.00	12.68	V
17966.500	38.85	-25.83	41.20	23.48	54.00	15.15	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5146.400	43.51	-23.86	34.39	32.98	54.00	10.49	V
5147.800	43.65	-23.83	34.39	33.09	54.00	10.35	V
8383.500	37.22	-32.19	35.90	33.51	54.00	16.78	H
10480.000	37.93	-32.14	37.58	32.49	54.00	16.07	H
15722.000	41.03	-26.34	40.34	27.03	54.00	12.97	V
17976.500	38.98	-25.84	41.20	23.62	54.00	15.02	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.600	43.85	-23.92	34.50	33.27	54.00	10.15	V
5354.300	43.76	-23.90	34.50	33.16	54.00	10.24	V
8415.500	36.23	-32.20	35.90	32.53	54.00	17.77	V
10521.000	38.25	-31.92	37.60	32.57	54.00	15.75	V
15781.000	40.88	-26.31	40.46	26.72	54.00	13.12	H
17985.500	38.98	-25.84	41.20	23.62	54.00	15.02	H

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.200	43.98	-23.92	34.50	33.40	54.00	10.02	V
5353.200	43.92	-23.91	34.50	33.33	54.00	10.08	V
8447.500	36.71	-32.24	35.90	33.05	54.00	17.29	V
10559.500	37.78	-31.72	37.60	31.90	54.00	16.22	H
15840.500	41.17	-26.30	40.58	26.89	54.00	12.83	V
17965.500	38.78	-25.83	41.20	23.41	54.00	15.22	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	45.66	-23.92	34.50	35.08	54.00	8.34	V
5350.600	45.57	-23.92	34.50	34.99	54.00	8.43	V
8512.000	36.79	-32.37	35.80	33.36	54.00	17.21	V
10639.500	36.67	-32.05	37.68	31.04	54.00	17.33	V
15961.000	40.10	-26.23	40.76	25.57	54.00	13.90	V
17971.000	38.99	-25.83	41.20	23.62	54.00	15.01	V

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.400	45.22	-23.82	34.39	34.64	54.00	8.78	V
5149.400	45.38	-23.80	34.40	34.78	54.00	8.62	V
8304.000	37.01	-32.18	35.90	33.28	54.00	16.99	H
10382.000	35.47	-32.06	37.48	30.05	54.00	18.53	V
15573.500	39.91	-26.55	40.15	26.32	54.00	14.09	V
17983.500	39.05	-25.84	41.20	23.69	54.00	14.95	V

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5145.200	43.66	-23.88	34.38	33.16	54.00	10.34	V
5149.000	43.65	-23.81	34.40	33.06	54.00	10.35	V
8368.000	36.84	-32.19	35.90	33.13	54.00	17.16	H
10462.500	35.98	-32.20	37.56	30.61	54.00	18.02	H
15691.000	39.80	-26.39	40.29	25.89	54.00	14.20	H
17985.000	38.98	-25.84	41.20	23.62	54.00	15.02	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.400	44.14	-23.92	34.50	33.56	54.00	9.86	V
5356.200	43.98	-23.90	34.50	33.37	54.00	10.02	V
8432.000	36.71	-32.22	35.90	33.03	54.00	17.29	H
10539.500	38.28	-31.82	37.60	32.50	54.00	15.72	H
15807.000	40.45	-26.31	40.51	26.24	54.00	13.55	H
17990.500	39.54	-25.85	41.20	24.19	54.00	14.46	H

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	49.41	-23.92	34.50	38.83	54.00	4.59	V
5350.600	49.26	-23.92	34.50	38.68	54.00	4.74	V
8495.500	36.27	-32.31	35.81	32.77	54.00	17.73	V
10620.000	36.75	-31.93	37.64	31.05	54.00	17.25	V
15928.500	41.00	-26.26	40.73	26.53	54.00	13.00	V
17965.000	39.02	-25.83	41.20	23.64	54.00	14.98	V

802.11ac-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.200	44.47	-23.82	34.39	33.90	54.00	9.53	V
5150.000	44.60	-23.79	34.40	33.98	54.00	9.40	V
8237.500	36.91	-32.17	35.82	33.25	54.00	17.09	H
10358.500	37.33	-32.02	37.46	31.89	54.00	16.67	V
15541.000	41.13	-26.58	40.08	27.63	54.00	12.87	V
17974.000	38.84	0.00	0.00	38.84	54.00	15.16	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.200	44.05	-23.82	34.39	33.48	54.00	9.95	V
5150.000	43.98	-23.79	34.40	33.36	54.00	10.02	V
8320.000	37.23	-32.19	35.90	33.51	54.00	16.77	V
10400.500	38.14	-32.09	37.50	32.73	54.00	15.86	H
15598.000	41.81	-26.52	40.20	28.13	54.00	12.19	H
17986.500	39.10	-25.84	41.20	23.74	54.00	14.90	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5145.600	43.58	-23.87	34.38	33.08	54.00	10.42	V
5149.800	43.70	-23.79	34.40	33.09	54.00	10.30	V
8384.000	37.08	-32.19	35.90	33.37	54.00	16.92	H
10480.500	38.25	-32.14	37.58	32.81	54.00	15.75	V
15721.000	41.50	-26.34	40.34	27.50	54.00	12.50	H
17986.000	39.01	-25.84	41.20	23.65	54.00	14.99	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.400	43.84	-23.92	34.50	33.27	54.00	10.16	V
5351.800	43.78	-23.92	34.50	33.20	54.00	10.22	V
8415.500	36.14	-32.20	35.90	32.44	54.00	17.86	V
10519.500	38.25	-31.93	37.60	32.58	54.00	15.75	H
15781.500	40.91	-26.31	40.46	26.76	54.00	13.09	V
17975.000	38.90	-25.83	41.20	23.54	54.00	15.10	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	43.94	-23.92	34.50	33.36	54.00	10.06	V
5352.400	43.93	-23.91	34.50	33.35	54.00	10.07	V
8448.000	36.44	-32.24	35.90	32.78	54.00	17.56	H
10560.000	38.17	-31.72	37.60	32.28	54.00	15.83	H
15840.500	41.35	-26.30	40.58	27.07	54.00	12.65	H
17993.500	39.08	-25.85	41.20	23.73	54.00	14.92	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.400	45.58	-23.92	34.50	35.01	54.00	8.42	V
5351.200	45.41	-23.92	34.50	34.83	54.00	8.59	V
8512.000	36.66	-32.37	35.80	33.23	54.00	17.34	H
10640.000	36.78	-32.05	37.68	31.15	54.00	17.22	V
15961.500	40.38	-26.23	40.76	25.85	54.00	13.62	H
17970.000	38.95	-25.83	41.20	23.58	54.00	15.05	H

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.600	45.32	-23.81	34.39	34.74	54.00	8.68	V
5149.600	45.53	-23.79	34.40	34.92	54.00	8.47	V
8304.000	36.83	-32.18	35.90	33.11	54.00	17.17	H
10381.000	35.35	-32.06	37.48	29.93	54.00	18.65	H
15573.000	39.88	-26.55	40.15	26.29	54.00	14.12	H
17975.000	38.83	-25.83	41.20	23.46	54.00	15.17	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5146.600	43.73	-23.85	34.39	33.20	54.00	10.27	V
5148.000	43.76	-23.83	34.39	33.19	54.00	10.24	V
8368.000	36.79	-32.19	35.90	33.08	54.00	17.21	H
10461.500	35.95	-32.19	37.56	30.58	54.00	18.05	H
15692.500	39.84	-26.38	40.29	25.93	54.00	14.16	V
17988.500	39.02	-25.85	41.20	23.67	54.00	14.98	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	44.07	-23.92	34.50	33.49	54.00	9.93	V
5351.600	44.02	-23.92	34.50	33.43	54.00	9.98	V
8431.500	35.90	-32.22	35.90	32.21	54.00	18.10	H
10540.000	38.20	-31.82	37.60	32.42	54.00	15.80	V
15809.000	40.54	-26.30	40.52	26.33	54.00	13.46	H
17966.500	38.97	-25.83	41.20	23.60	54.00	15.03	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	48.56	-23.92	34.50	37.99	54.00	5.44	V
5350.600	48.42	-23.92	34.50	37.84	54.00	5.58	V
8496.000	35.85	-32.31	35.81	32.35	54.00	18.15	H
10620.000	36.49	-31.93	37.64	30.78	54.00	17.51	V
15928.500	40.79	-26.26	40.73	26.33	54.00	13.21	H
17977.500	38.91	-25.84	41.20	23.55	54.00	15.09	H

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Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5145.600	45.60	-23.87	34.38	35.10	54.00	8.40	V
5149.800	46.07	-23.79	34.40	35.46	54.00	7.93	V
8336.000	37.55	-32.19	35.90	33.84	54.00	16.45	H
11909.500	35.05	-30.96	38.79	27.22	54.00	18.95	H
15643.000	38.81	-26.45	40.24	25.02	54.00	15.19	H
17991.500	38.97	-25.85	41.20	23.62	54.00	15.03	H

Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.000	50.78	-23.92	34.50	40.21	54.00	3.22	V
5350.600	50.73	-23.92	34.50	40.15	54.00	3.27	V
8463.500	36.48	-32.26	35.87	32.86	54.00	17.52	H
11909.500	34.96	-30.96	38.79	27.12	54.00	19.04	H
15870.000	38.81	-26.30	40.64	24.47	54.00	15.19	V
17967.500	38.91	-25.83	41.20	23.54	54.00	15.09	V

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.645	60.87	-23.81	34.39	50.29	74.00	13.13	H
5149.083	61.24	-23.80	34.40	50.65	74.00	12.76	V
10356.000	50.78	-32.02	37.46	45.34	68.30	17.52	H
15538.000	57.32	-26.59	40.08	43.83	74.00	16.68	V
16612.000	52.73	-25.71	41.62	36.82	68.30	15.56	V
16831.000	52.83	-25.42	41.80	36.45	68.30	15.47	V

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5164.400	58.84	-23.50	34.43	47.91	68.30	9.46	H
5233.600	59.56	-24.27	34.57	49.26	68.30	8.74	H
10399.000	51.60	-32.09	37.50	46.19	68.30	16.70	V
15605.500	56.77	-26.51	40.21	43.07	74.00	17.23	V
16822.500	53.50	-25.43	41.80	37.13	68.30	14.80	H
16962.500	52.67	-25.56	41.80	36.43	68.30	15.63	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5194.400	59.11	-23.83	34.49	48.45	68.30	9.19	V
5200.800	62.36	-23.90	34.50	51.75	68.30	5.94	H
10483.000	51.11	-32.12	37.58	45.65	68.30	17.19	H
15720.000	56.30	-26.34	40.34	42.30	74.00	17.70	H
16790.000	53.10	-25.46	41.80	36.76	68.30	15.20	V
17264.500	52.90	-25.85	41.24	37.51	68.30	15.40	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5221.600	63.84	-24.13	34.54	53.43	68.30	4.46	H
5299.200	60.39	-24.31	34.70	50.00	68.30	7.91	H
10517.000	52.65	-31.94	37.60	47.00	68.30	15.65	H
15776.000	56.52	-26.31	40.45	42.38	74.00	17.48	H
16836.500	52.72	-25.41	41.80	36.33	68.30	15.58	V
17058.500	52.64	-25.75	41.62	36.77	68.30	15.66	H

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5244.200	60.92	-24.39	34.59	50.72	68.30	7.38	V
5324.200	63.15	-24.05	34.60	52.60	68.30	5.15	H
10557.000	51.40	-31.73	37.60	45.53	68.30	16.90	V
15843.000	55.62	-26.30	40.59	41.34	74.00	18.38	H
16743.000	52.86	-25.51	41.80	36.57	68.30	15.44	H
17963.000	52.56	-25.82	41.20	37.19	68.30	15.74	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.461	70.31	-23.92	34.50	59.74	74.00	3.69	V
5351.141	70.47	-23.92	34.50	59.89	74.00	3.53	H
10639.000	49.64	-32.05	37.68	44.01	74.00	24.36	V
15952.500	55.34	-26.24	40.75	40.83	74.00	18.66	H
16782.500	52.51	-25.47	41.80	36.18	68.30	15.79	H
17538.500	52.87	-25.71	41.20	37.38	68.30	15.43	H

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.470	62.79	-23.82	34.39	52.21	74.00	11.21	H
5148.733	65.81	-23.81	34.39	55.22	74.00	8.19	V
10362.000	50.56	-32.03	37.46	45.13	68.30	17.74	V
15541.500	55.77	-26.58	40.08	42.27	74.00	18.23	V
16746.000	52.62	-25.51	41.80	36.33	68.30	15.68	H
16863.000	52.88	-25.38	41.80	36.47	68.30	15.42	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5169.000	59.60	-23.55	34.44	48.72	68.30	8.70	H
5174.000	61.65	-23.60	34.45	50.80	68.30	6.65	H
8319.500	46.88	-32.19	35.90	43.16	74.00	27.12	V
10400.500	50.70	-32.09	37.50	45.29	68.30	17.60	H
15596.500	56.77	-26.52	40.19	43.10	74.00	17.23	H
16841.500	53.48	-25.41	41.80	37.09	68.30	14.82	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5201.800	59.39	-23.91	34.50	48.79	68.30	8.91	V
5205.800	60.61	-23.95	34.51	50.05	68.30	7.69	V
10483.000	51.19	-32.12	37.58	45.73	68.30	17.11	H
15720.000	55.98	-26.34	40.34	41.98	74.00	18.02	V
16542.500	52.40	-25.83	41.54	36.69	68.30	15.90	V
16832.500	52.60	-25.42	41.80	36.22	68.30	15.70	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5222.000	57.90	-24.13	34.54	47.48	68.30	10.40	H
5297.200	57.92	-24.33	34.69	47.56	68.30	10.38	V
10511.500	51.03	-31.97	37.60	45.41	68.30	17.27	H
15775.500	55.93	-26.31	40.45	41.78	74.00	18.07	H
16649.500	52.94	-25.65	41.70	36.89	68.30	15.36	V
16874.000	52.79	-25.37	41.80	36.37	68.30	15.51	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5242.800	58.03	-24.37	34.59	47.82	68.30	10.27	V
5323.000	58.88	-24.05	34.61	48.33	68.30	9.42	H
10562.000	50.01	-31.71	37.60	44.11	68.30	18.29	H
15838.000	55.64	-26.30	40.58	41.36	74.00	18.36	H
16712.000	52.80	-25.54	41.80	36.54	68.30	15.50	H
16926.000	52.67	-25.48	41.80	36.36	68.30	15.63	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5351.447	69.00	-23.92	34.50	58.42	74.00	5.00	H
5352.135	69.15	-23.91	34.50	58.57	74.00	4.85	V
10641.000	50.65	-32.06	37.68	45.02	74.00	23.35	H
15960.500	55.80	-26.23	40.76	41.28	74.00	18.20	H
16602.500	53.32	-25.73	41.61	37.45	68.30	14.98	V
17063.000	52.97	-25.75	41.61	37.11	68.30	15.33	H

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.420	65.97	-23.84	34.39	55.42	74.00	8.03	V
5148.943	65.74	-23.81	34.40	55.15	74.00	8.26	H
10379.500	49.47	-32.06	37.48	44.04	68.30	18.83	H
15563.500	52.77	-26.56	40.13	39.20	74.00	21.23	H
16745.500	52.72	-25.51	41.80	36.43	68.30	15.58	H
16970.000	52.77	-25.58	41.80	36.55	68.30	15.52	V

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5181.250	60.21	-23.68	34.46	49.43	68.30	8.09	H
5300.200	61.55	-24.30	34.70	51.15	68.30	6.75	V
10458.500	49.00	-32.19	37.56	43.64	68.30	19.30	H
15693.500	52.91	-26.38	40.29	39.00	74.00	21.09	H
16610.000	53.22	-25.72	41.62	37.32	68.30	15.08	H
16846.500	52.63	-25.40	41.80	36.24	68.30	15.66	H

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5219.200	60.46	-24.10	34.54	50.02	68.30	7.84	H
5325.200	61.09	-24.04	34.60	50.54	68.30	7.21	V
10539.500	50.69	-31.82	37.60	44.91	68.30	17.61	V
15810.000	54.77	-26.30	40.52	40.55	74.00	19.23	H
16614.000	53.85	-25.71	41.63	37.93	68.30	14.45	V
16881.000	53.76	-25.38	41.80	37.34	68.30	14.54	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.096	71.18	-23.92	34.50	60.61	74.00	2.82	V
5359.331	69.31	-23.88	34.50	58.69	74.00	4.69	V
10620.000	49.45	-31.93	37.64	43.74	74.00	24.55	H
15925.000	51.51	-26.27	40.73	37.05	74.00	22.49	V
16445.500	53.00	-25.99	41.28	37.71	68.30	15.30	V
16787.000	53.25	-25.46	41.80	36.92	68.30	15.05	V

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5148.715	63.45	-23.81	34.39	52.86	74.00	10.55	H
5149.608	63.72	-23.79	34.40	53.12	74.00	10.28	H
10361.000	50.48	-32.02	37.46	45.04	68.30	17.82	V
15535.500	55.33	-26.59	40.07	41.85	74.00	18.67	H
16628.000	53.11	-25.69	41.66	37.14	68.30	15.19	V
16977.500	52.74	-25.59	41.80	36.53	68.30	15.56	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5154.800	59.69	-23.69	34.41	48.97	68.30	8.61	H
5243.800	61.90	-24.39	34.59	51.70	68.30	6.40	V
10403.500	51.23	-32.10	37.50	45.82	68.30	17.07	V
15601.000	56.77	-26.52	40.20	43.08	74.00	17.23	H
16859.500	52.93	-25.39	41.80	36.52	68.30	15.37	H
16935.500	52.88	-25.50	41.80	36.59	68.30	15.42	V

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5204.400	61.45	-23.94	34.51	50.88	68.30	6.85	H
5276.200	60.36	-24.58	34.65	50.29	68.30	7.94	V
10488.000	50.44	-32.10	37.59	44.95	68.30	17.86	H
15716.500	56.55	-26.35	40.33	42.56	74.00	17.45	H
16780.500	52.90	-25.47	41.80	36.58	68.30	15.40	H
17056.000	52.67	-25.75	41.63	36.79	68.30	15.63	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5227.800	61.94	-24.20	34.56	51.58	68.30	6.36	V
5299.600	60.44	-24.31	34.70	50.05	68.30	7.86	V
10522.000	51.17	-31.92	37.60	45.49	68.30	17.13	V
15786.500	55.44	-26.31	40.47	41.27	74.00	18.56	V
16866.500	53.55	-25.38	41.80	37.14	68.30	14.75	V
17544.000	53.09	-25.70	41.20	37.59	68.30	15.21	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5241.800	59.70	-24.36	34.58	49.48	68.30	8.60	V
5319.800	61.03	-24.07	34.62	50.48	68.30	7.27	H
10561.000	50.57	-31.71	37.60	44.68	68.30	17.73	H
15835.500	55.95	-26.30	40.57	41.68	74.00	18.05	V
16536.500	52.68	-25.84	41.54	36.99	68.30	15.62	H
16696.500	52.94	-25.57	41.79	36.72	68.30	15.36	H

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.367	68.22	-23.92	34.50	57.65	74.00	5.78	V
5352.027	67.95	-23.91	34.50	57.37	74.00	6.05	V
10636.000	49.91	-32.03	37.67	44.27	74.00	24.09	H
15966.000	55.87	-26.23	40.77	41.34	74.00	18.13	V
16794.000	53.08	-25.46	41.80	36.73	68.30	15.22	V
17028.500	53.68	-25.71	41.71	37.67	68.30	14.62	H

802.11ac-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5147.665	66.34	-23.83	34.39	55.78	74.00	7.66	H
5148.085	67.08	-23.82	34.39	56.51	74.00	6.92	H
10380.000	48.42	-32.06	37.48	42.99	68.30	19.88	V
15579.000	54.34	-26.55	40.16	40.72	74.00	19.66	V
16601.000	52.45	-25.73	41.60	36.58	68.30	15.85	H
17039.000	52.64	-25.73	41.68	36.68	68.30	15.66	V

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5175.000	59.61	-23.61	34.45	48.77	68.30	8.69	H
5300.600	60.16	-24.30	34.70	49.76	68.30	8.14	H
10466.500	48.87	-32.20	37.57	43.51	68.30	19.43	V
15696.000	52.64	-26.38	40.30	38.72	74.00	21.36	V
16916.000	52.96	-25.46	41.80	36.62	68.30	15.34	V
17111.500	52.99	-25.77	41.48	37.29	68.30	15.31	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5211.400	60.06	-24.01	34.52	49.55	68.30	8.24	V
5328.800	64.50	-24.02	34.58	53.94	68.30	3.80	V
10541.000	51.04	-31.82	37.60	45.26	68.30	17.26	V
15809.500	54.49	-26.30	40.52	40.28	74.00	19.51	V
16623.000	52.75	-25.69	41.65	36.80	68.30	15.55	H
17245.000	52.66	-25.84	41.25	37.24	68.30	15.64	H

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5355.834	71.11	-23.90	34.50	60.51	74.00	2.89	H
5359.331	69.71	-23.88	34.50	59.09	74.00	4.29	H
10611.000	48.84	-31.88	37.62	43.10	74.00	25.16	H
15929.500	54.60	-26.26	40.73	40.13	74.00	19.40	V
16492.000	52.57	-25.91	41.47	37.02	68.30	15.73	H
17501.500	53.00	-25.75	41.20	37.55	68.30	15.30	H

802.11ac-HT80
Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5145.653	65.27	-23.87	34.38	54.76	74.00	8.73	V
5148.540	67.03	-23.82	34.39	56.45	74.00	6.97	V
10412.500	47.67	-32.11	37.51	42.27	68.30	20.62	V
15649.500	52.08	-26.45	40.25	38.28	74.00	21.92	V
16774.000	53.46	-25.48	41.80	37.14	68.30	14.84	V
17003.500	52.71	-25.65	41.79	36.57	68.30	15.59	H

Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5350.785	67.84	-23.92	34.50	57.26	74.00	6.16	H
5351.025	68.70	-23.92	34.50	58.12	74.00	5.30	V
10544.000	47.41	-31.80	37.60	41.61	68.30	20.89	V
15833.500	51.89	-26.30	40.57	37.63	74.00	22.11	H
16680.000	52.34	-25.60	41.76	36.18	68.30	15.96	V
16940.500	52.67	-25.51	41.80	36.38	68.30	15.63	V

Conclusion: PASS
Note:

1. The spurious emission above 18G is noise only.
2. All emissions below 30MHz are more than 20 dB below the limit

A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

Method of Measurement:

See Clause 6.2 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

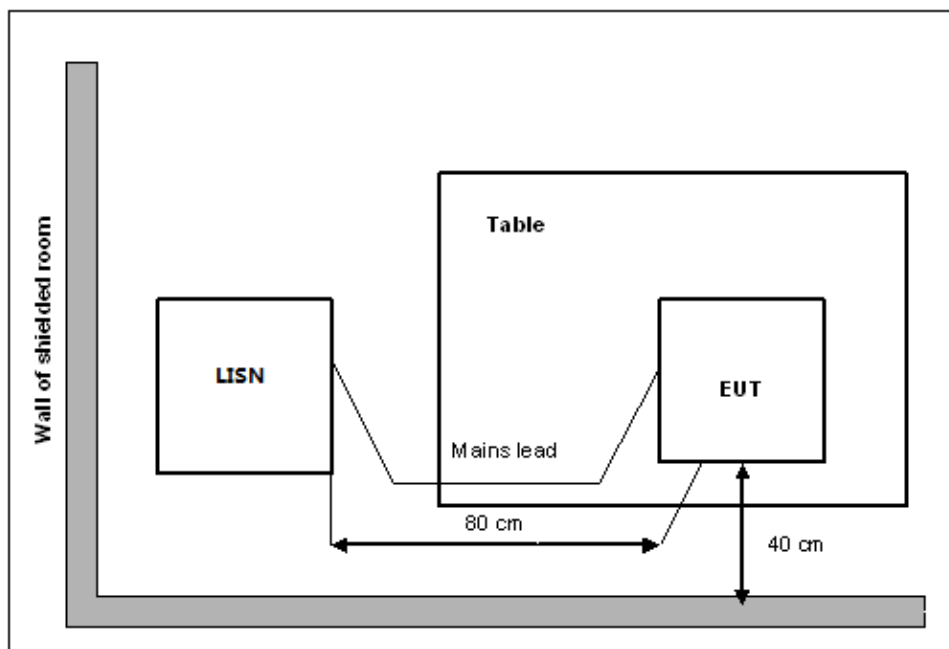
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.A7.1	Fig.A7.2	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	67 56 to 46	Fig.A7.1	Fig.A7.2	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: PASS
Test graphs as below:

Note: The measurement results showed here are worst cases.

Traffic:

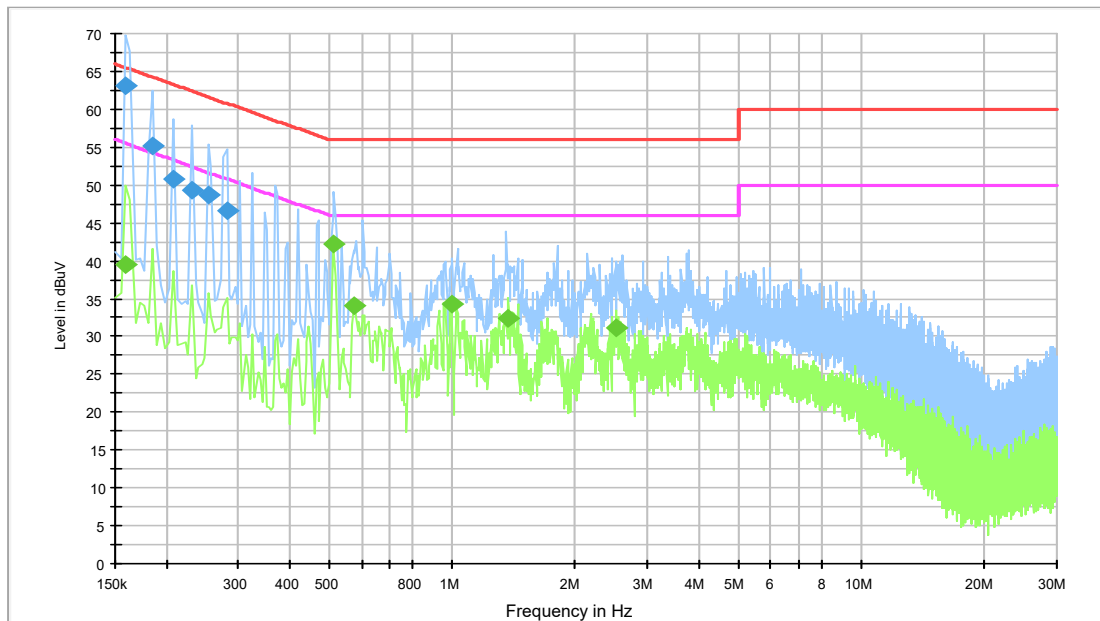


Fig.A7.1 AC Powerline Conducted Emission-Traffic

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.159000	63.0	1000.	9.000	N	26.8	2.5	65.5
0.186000	55.2	1000.	9.000	N	22.0	9.0	64.2
0.208500	50.9	1000.	9.000	N	19.7	12.4	63.3
0.231000	49.4	1000.	9.000	N	19.7	13.0	62.4
0.253500	48.6	1000.	9.000	L1	19.7	13.0	61.6
0.280500	46.7	1000.	9.000	N	19.7	14.1	60.8

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.159000	39.5	1000.0	9.000	N	26.8	16.0	55.5
0.510000	42.2	1000.0	9.000	N	19.8	3.8	46.0
0.577500	34.0	1000.0	9.000	N	19.7	12.0	46.0
0.996000	34.2	1000.0	9.000	N	19.6	11.8	46.0
1.374000	32.3	1000.0	9.000	N	19.6	13.7	46.0
2.512500	31.2	1000.0	9.000	N	19.6	14.8	46.0

Idle

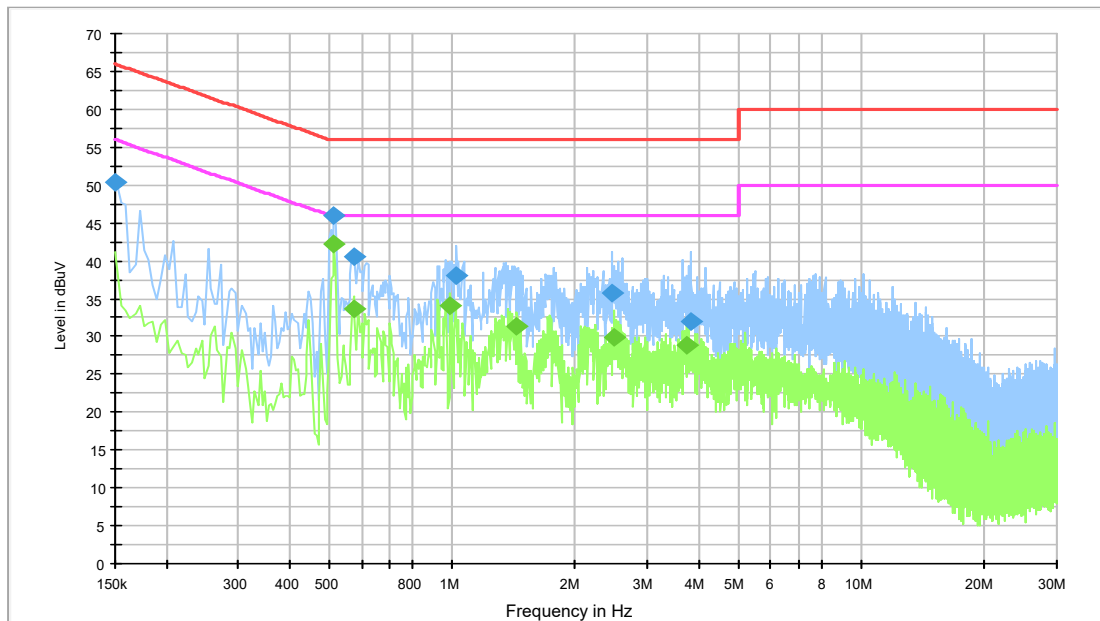


Fig.A7.2 AC Powerline Conducted Emission-Idle

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	50.4	1000.	9.000	L1	28.6	15.6	66.0
0.514500	45.9	1000.	9.000	N	19.8	10.1	56.0
0.573000	40.6	1000.	9.000	N	19.7	15.4	56.0
1.023000	37.9	1000.	9.000	N	19.6	18.1	56.0
2.449500	35.8	1000.	9.000	N	19.6	20.2	56.0
3.822000	32.0	1000.	9.000	L1	19.6	24.0	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.514500	42.2	1000.0	9.000	N	19.8	3.8	46.0
0.573000	33.6	1000.0	9.000	N	19.7	12.4	46.0
0.991500	34.1	1000.0	9.000	N	19.6	11.9	46.0
1.441500	31.3	1000.0	9.000	N	19.6	14.7	46.0
2.490000	29.9	1000.0	9.000	N	19.6	16.1	46.0
0.514500	42.2	1000.0	9.000	N	19.6	17.2	46.0

A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

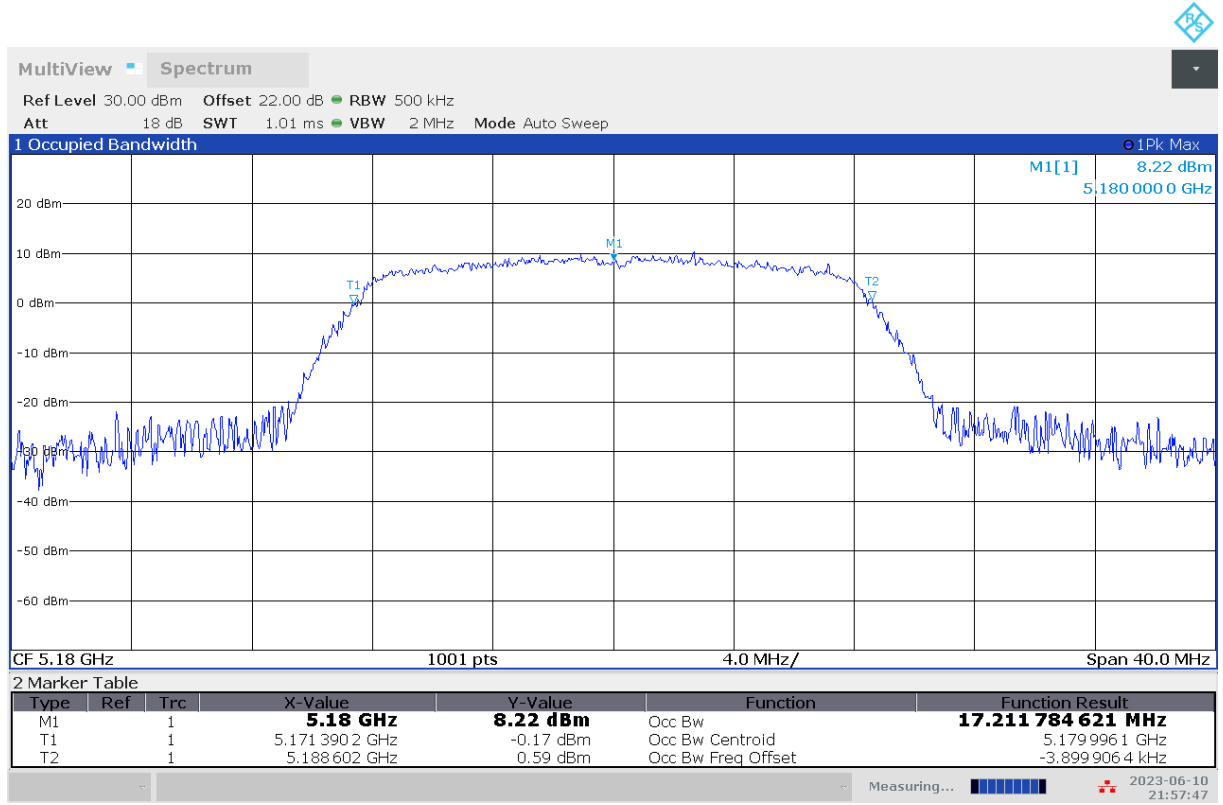
Measurement Uncertainty	60.80Hz
-------------------------	---------

Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.31	17.20	P
	5200 MHz	Fig.32	17.12	P
	5240 MHz	Fig.33	17.23	P
802.11ac HT20	5180 MHz	Fig.34	18.02	P
	5200 MHz	Fig.35	18.02	P
	5240 MHz	Fig.36	18.08	P
802.11ac HT40	5190 MHz	Fig.37	36.11	P
	5230 MHz	Fig.38	36.20	P
802.11ac HT80	5210 MHz	Fig.39	75.22	P

Conclusion: PASS

Test graphs as below:



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Fig.31 99% Occupied bandwidth (802.11a, 5180MHz)

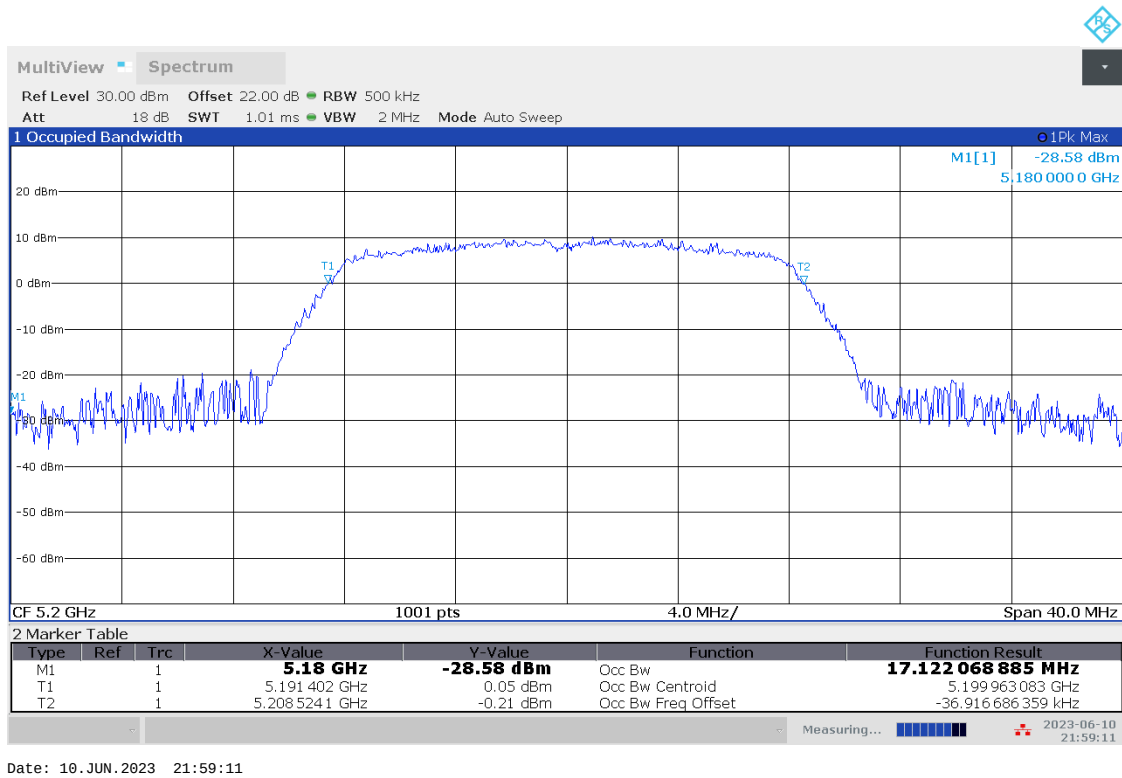


Fig.32 99% Occupied bandwidth (802.11a, 5200MHz)

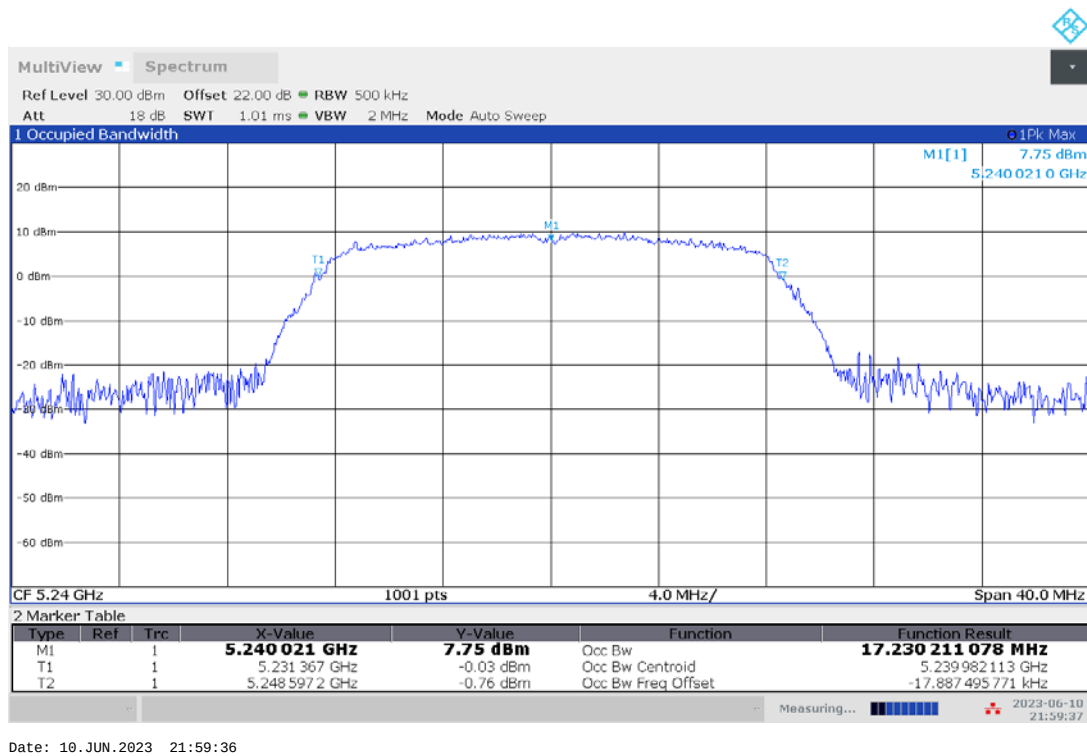


Fig.33 99% Occupied bandwidth (802.11a, 5240MHz)

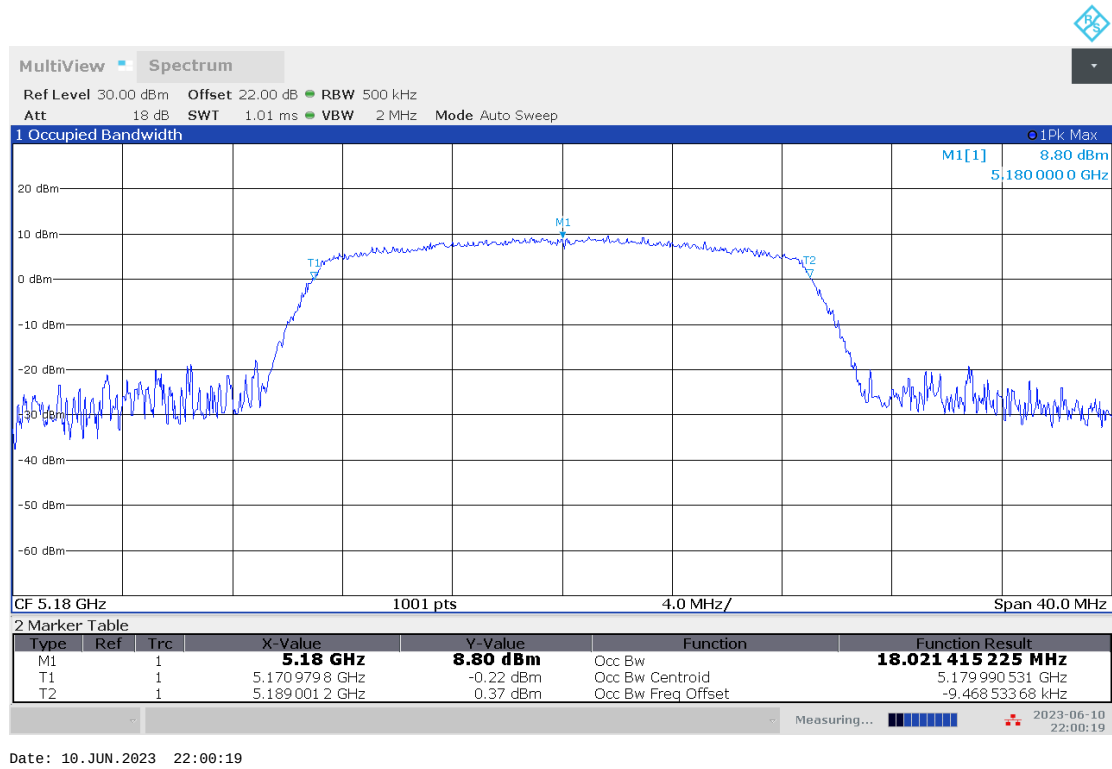


Fig.34 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)

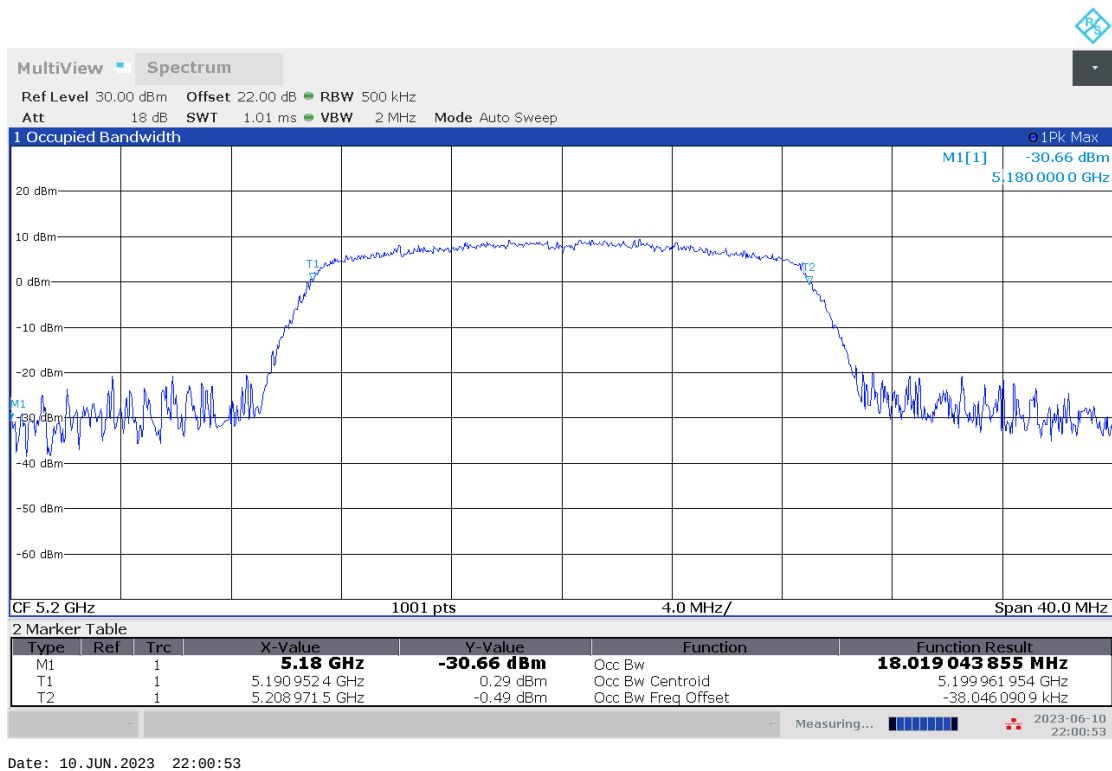


Fig.35 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)

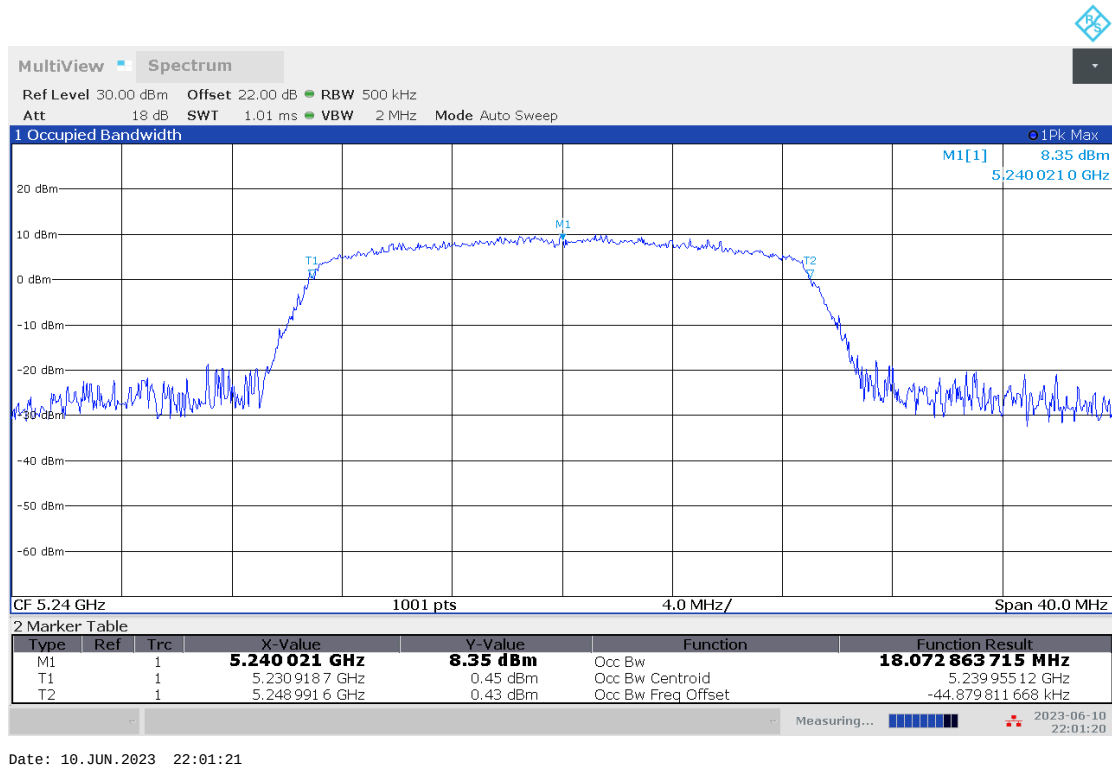


Fig.36 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)

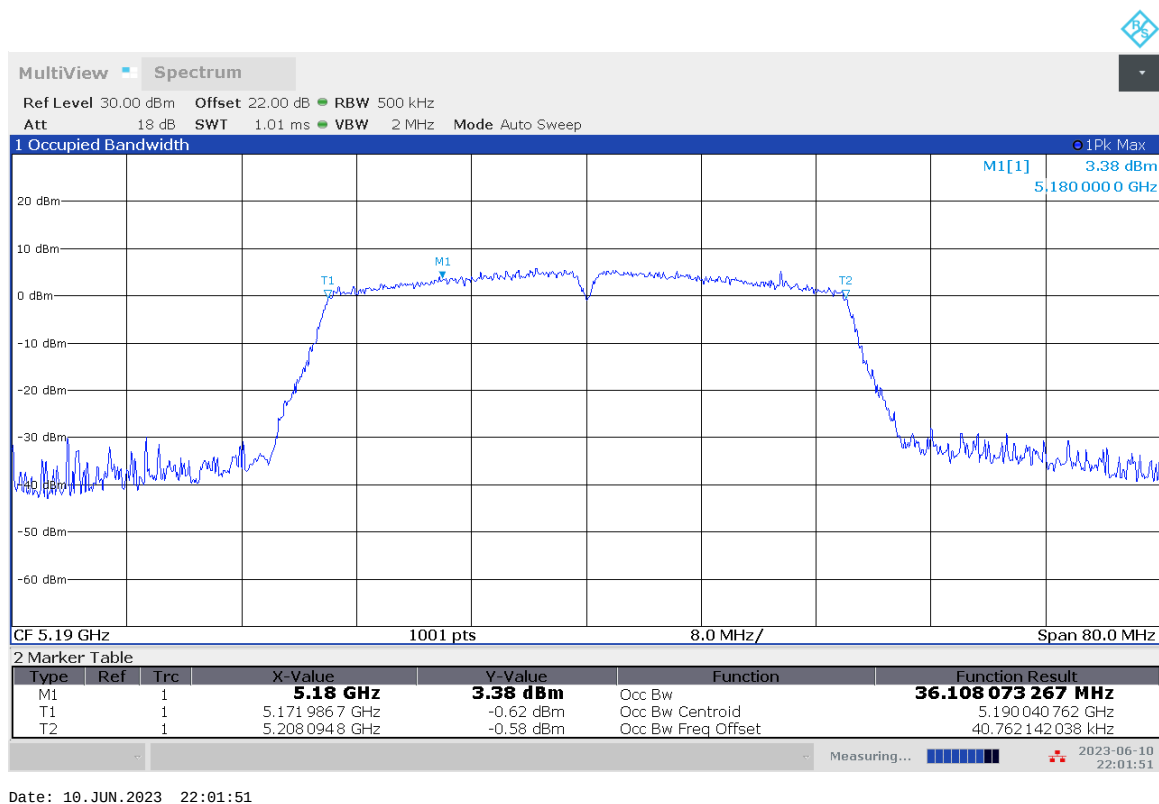


Fig.37 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)

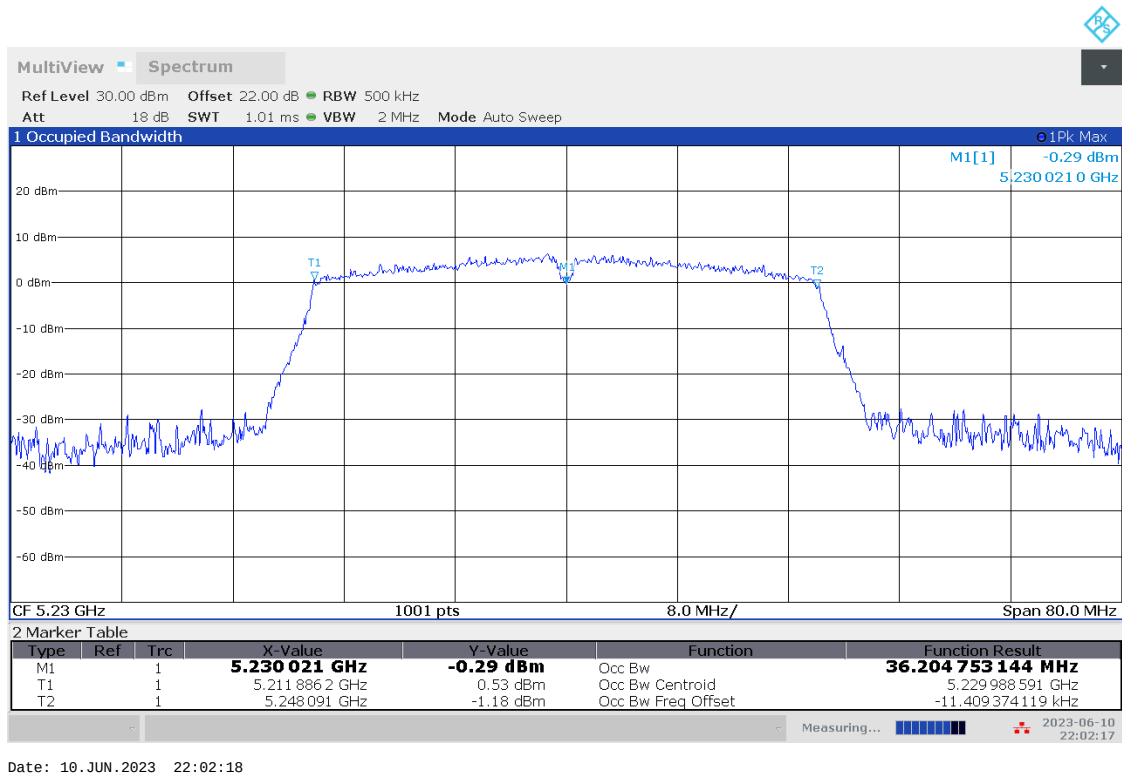


Fig.38 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)

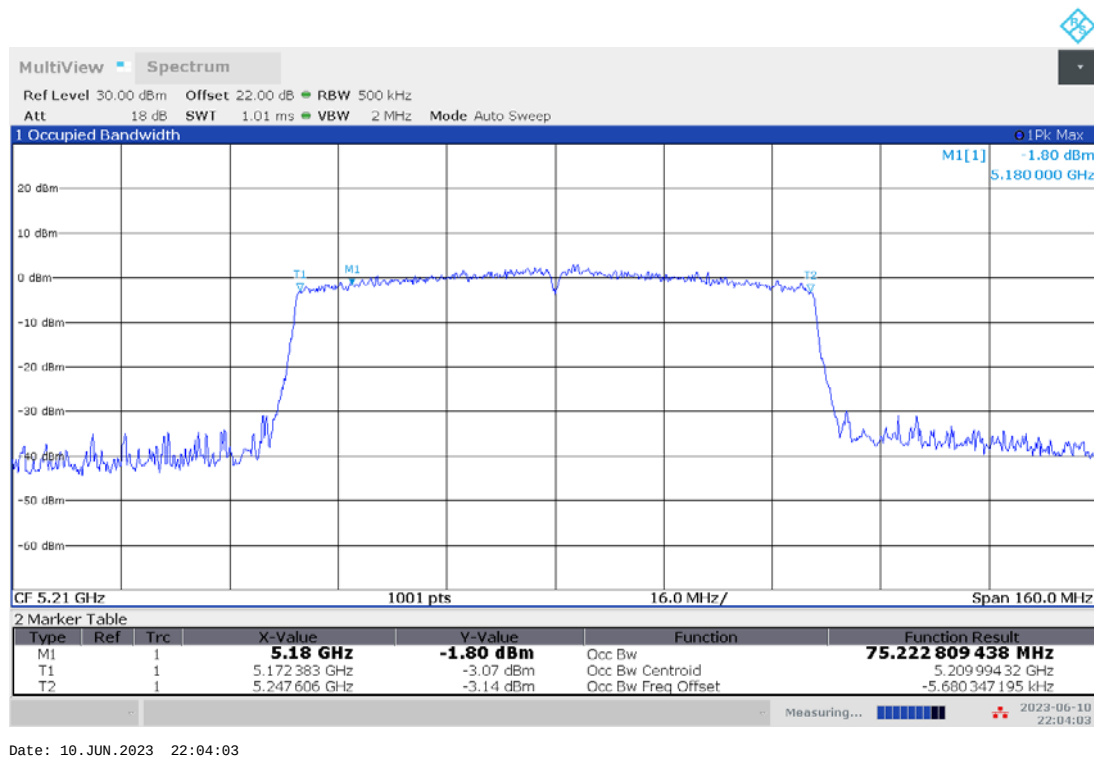


Fig.39 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)

A.9. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate



*** END OF REPORT BODY ***